EDUCATION AND THE PHILOSOPHIC MIND

UNIVERSITY OF LONDON *INSTITUTE OF EDUCATION*

Education and the Philosophic Mind

Edited by

A. V. JUDGES

PROFESSOR OF THE HISTORY OF EDUCATION
UNIVERSITY OF LONDON KING'S COLLEGE

GEORGE G. HARRAP & CO. LTD
LONDON TORONTO WELLINGTON SYDNEY

First published in Great Britain 1957
by GEORGE G. HARRAP & CO. LTD
182 High Holborn, London, W.C.1

Copyright. All rights reserved

Composed in Baskerville type and printed at the St Ann's Press
Park Road, Altrincham. Made in Great Britain

CONTENTS

		Page
	FOREWORD	7
	EDITOR'S INTRODUCTION	9
I.	THE PERENNIAL APPEAL OF PLATO by Sir Charles Morris, M.A., LL.D., Litt.D. *Vice-Chancellor, University of Leeds*	27
II.	NEO-THOMISM by the Reverend Father W Lawson, S.J., M.A., S.T.L. *Principal, Manresa College*	43
III.	EXISTENTIALISM by M. V. C. Jeffreys, C.B.E., M.A. *Professor of Education and Director, Birmingham Institute of Education*	60
IV.	PRAGMATISM AND THE 'NEW EDUCATION' by A. V. Judges, B.A., D.Sc. *Professor of the History of Education, University of London*	81
V.	BEHAVIOURISM by C. A. Mace, M.A., D.Lit. *Professor of Psychology, University of London*	102
VI.	LOGICAL POSITIVISM by W. H. F. Barnes, M.A. *Professor of Philosophy, University of Durham*	121
VII.	SCIENTIFIC HUMANISM by J. A. Lauwerys, D.Sc., F.R.I.C. *Professor of Comparative Education, University of London*	142

VIII. DIALECTICAL MATERIALISM 167
by H. B. Acton, D.Phil.
Professor of Philosophy, University of London

IX. PHILOSOPHY AND EDUCATION 186
by L. Arnaud Reid, M.A., Ph.D., D.Litt.
Professor of the Philosophy of Education, University of London

Foreword

by DR G. B. JEFFERY

In writing of the Universities of the Middle Ages Hastings Rashdall says:

> As all priestly power had its visible head and source in the city of the Seven Hills, as all secular authority was ultimately held of the Holy Roman Empire, so could all the streams of knowledge by which the Universal Church was watered and fertilized, be ultimately traced as to their fountain-head to the great universities, especially to the University of Paris.

Translated, perhaps, into more modern terms this expresses well the primary duty of a university and the test by which its value can be assessed. Does something flow from it that causes things to grow in the intellectual and cultural life of the people among whom it is set? Universities have not always accepted this duty and all its implications, but it was a sign of grace when nearly all the universities of England and Wales agreed to accept a wide responsibility for the training of teachers through their respective Institutes of Education. The great opportunity of the Institutes is to provide the channels through which the fertilizing water can flow from the universities to teachers and the teachers of teachers.

This course of lectures had its origin in the question whether there was anything in the philosophic thought current in our universities that was capable of fertilizing the work of teachers, causing it to strike its roots more deeply and to bear more and better fruit. It seemed natural to

gather a team of philosophers representing different strains of thought within our universities and to see what they had to offer. The Institute was indeed fortunate in the ready response it received from the distinguished scholars whose lectures are included in this volume.

By undertaking the considerable task of editing this volume, and especially by writing the introductory chapter, Professor Judges has done no more than to add another item to the debt which the Institute owes to him for his many contributions to the development of our public lectures and publication policy.

G. B. JEFFERY
Director,
University of London
Institute of Education

Editor's Introduction

This book originated in a design to offer some appraisals of modern intellectual currents to an audience composed of teachers, and also of others much concerned with teachers' problems. It does not, as a book, claim to present an agreed or final point of view, or to be anything beyond a partial survey of an unlimited field; nor is it the task of this Introduction to do more than indicate how far contributors hold common or reconcilable views and where they part company. The contributors themselves have been under an obligation to say more about philosophic thought and about ways of clarifying its message than about education. Most of them would have been glad to have more time for development. As it was, to epitomize the subject chosen as the lecturer's topic seemed a sufficient task; and the implications sometimes had to take their chance.

Professor Reid, however, was good enough to take charge of the whole question of relations between philosophy and education; and, after listening to the earlier lectures, he accepted the responsibility for bringing out some of these implications (Chapter IX). Furthermore, it can certainly be claimed that the author of every chapter has had very much in mind the bearing of his remarks upon educational thinking. A few, like Fr. Lawson (Chapter II), were happily able to demonstrate that a rationale of educational practice was actually embedded in the way of thought under scrutiny. But not all were concerned with philosophical systems as such. Some were quite outside the world of 'absolute being' and were engaged with relative meanings rather than a body of knowledge. In such cases a demonstration of coherence

and congruence, embracing the notions of educational thought, would have offered spectacular hazards.

The reader may be advised not to expect that current movements of thought do much to simplify educational theory. He may be surprised, moreover, to discover that the pundits enjoy more common ground on the fundamentals of what may be called good progressive classroom technique than on the nature of reality itself. Is there a paradox here? Human relations certainly seem to have their own core of meaning which eludes intellectual analysis.

Yet it is the crying need for an intellectual analysis of the deeper problems of the educationist which calls into being a range of inquiries like the present one. We demand an orderly theoretical structure when trying to explain an activity as complex and pervasive as learning, within the settings of biological process and human society. Even if all metaphysical suppositions are dropped, and we confine ourselves to the treatment of the elaborate apparatus of stimulus, response, and retention which modern neurology and electro-encephalography can offer us, complete with the equipment of linked cell-structures for the generating and routing of motives, memories, and reflections—even so the theoretical questions for education remain tantalizing in their lack of clear limits and proper subject-matter. Problems of free choice and human destiny, problems which to the early behaviourists seemed to have evaporated, yet lurk uneasily in the corners of the psychologist's laboratory. Professor Mace, in his remarks (Chapter V) on *behaviourism* as understood in the nineteen-twenties, points out that, although the arrogant creed of J. B. Watson is now invalidated as a guide to learning and living, yet—in a now much attenuated "operational" guise—"a chastened and enlightened behaviourism" can be held to signify the revival of a naturalistic monism as old as Aristotle. Professor Mace may be right in believing that this tool of thought may come to occupy a central position for those who continue to study experimentally the activities of teaching and learning; so

that at last it may offer us—not a triumph of human engineering, that final horror of a brave new world—but the knowledge of the "point in the course of development at which parents and teachers take their hands off the controls."

If psychology and its higher assumptions are not to be regarded as philosophy, then so much the worse for philosophy. In a very brilliant vindication of the value of his subject, delivered in the Terry Lectures at Yale, Dr Gordon Allport has recently claimed that the "goal of psychology is to reduce discord among our philosophies of man."[1] In this optimistic light, offering its services as the philosopher's friend, armchair psychology might seem to have more to contribute to education theory than can be drawn from the powerful and sensitive movement in *analytic philosophy* which has flourished in the older British universities in recent years. Professor Barnes reminds us in Chapter VI that *logical positivism* is no longer an apt description of what its exponents are attempting. Less restrictive than it used to be, analytic philosophy has become more tolerant of the needs of other disciplines of the mind; yet it is still disposed to think of the task of philosophy as an extremely limited thing, no more, indeed, than the close examination of the relations between concepts, and above all the words that cloak them, and empirical truth.

Now, in the human setting of semantic studies the standards and values by which we live issue only in the form of arbitrary constructs of the mind. The methods of inquiry which yield incontestable 'verification'—that is to say, the methods of the physical sciences—can claim to provide a touchstone of truth. But words like 'right' and 'wrong,' 'fair' and 'contemptible,' fall outside the idiom of that sort of truth; and all attempts to arrange observed bits of behaviour and human relations in an order of rank seem to lack the crisp finality which scientific method demands. Thus all the moral questions which from the earliest days have

[1] G. Allport, *Becoming* (1955), p. 17.

exercised educational thought are full of unverifiable opinion, and, being expressed, when words try to accommodate them in what is referred to as 'a kind of nonsense language,' they escape the net of philosophical precision. The branch of study which we were accustomed to call 'political philosophy' has lately been subjected to the methods of verbal analysis in this way, and has not emerged unscathed. The turn of 'philosophy of education' to undergo treatment and, no doubt, evisceration may come next; and indeed we have Professor H. D. Hardie's interesting *Truth and Fallacy in Educational Theory* (1942) as a forerunner to provide some indication of the ways in which the purge of meanings is likely to take effect.

How far semantic analysis will enrich the field of education theory remains to be seen. The extent of this field is after all debatable. It might be held that any rewarding theoretical approach *must* discuss—I will not say determine—(*a*) the nature of the activities involved in the process of learning, and (*b*) the realities which underlie judgments of value and preference. Some would go farther and add another *must*—that is to say, (*c*) an inquiry into the dynamics of personality, in so far as this is not already comprehended in (*a*) and (*b*). These might be thought to be minimal requirements. The study of (*d*) environmental influences (material, social, spiritual) certainly cannot be neglected either. What will be left of our axioms and our working rules after a full linguistic inspection? Is this a quarter to which we can hopefully look? Talking about modern developments in philosophic method, a Third Programme speaker lately said that "hungry sheep should not expect to be fed simply because they are looking up, for they may be looking up in the wrong direction."

In his patient extraction of the message which the new semantic positivism brings to education, Professor Barnes remarks on its hostility to other-worldliness and to all metaphysical talk; its suspicion of all fixed principles as a basis for morals; its determination to distinguish sharply between

factual inquiry in the laboratory and the evaluation of opinions on the rostrum. It may be thought that attitudes to teaching method are certain to be put to the question by the verbal analyst. As for the central core of education theory, by scorching action against humbug and platitudes and the tyranny of evocative words in dubious association, the analyst may have important work to do in cauterizing and tidying up.

Suppose we go beyond analysis and look to other philosophical approaches for more constructive help. Some of my acquaintance would argue that our present poverty in education theory results from prematurely abandoning the older and not yet outmoded metaphysical doctrines, and from failing to apply them, as we find the operation performed in the older masters, in James Mill and the empiricists, in Herbart, in T. H. Green and Gentile and Croce. Certainly nearly all varieties of nineteenth-century idealism, though we may still find them on the education-library shelves, have lost their appeal. The truth is, the idealists never offered a very powerful attraction, with their "vague and vast ideas"; for their kind of thinking could not be brought squarely to bear upon what we must admit to be the central question confronting those who speculate about educational principles—namely, our beliefs (or hypotheses) about the nature of man.

On the other hand, what can surely be observed is that the great stream of the *Platonist tradition* has continued to flow strongly in the utterances of our elder statesmen. It is entirely proper that we should take its influence into account. Sir Charles Morris reminds us in Chapter I that modern opinion is not naturally favourable to Plato's own attitude to the training of the maturing citizen. But if his educational recommendations savour too much of tripartitism for some tastes, and of the cultivation of élites for others, the appeal of Platonism still holds. Relativity and relativism are all right in their place. But all who are in contact with the outlook of the young are aware of a strong and indeed

desperate desire that the life of the mind shall not be deprived of the security of established relationships between fixed and fundamental things. And thus attention is recalled to one of the most ancient, and certainly one of the most potent, of ways of talking about education—the way expressed in the belief in the soul's attraction towards eternal truth, and the soul's willingness, if it be adequately persuaded through the gateway of the intellect, to identify goodness and the models of virtue with the forms of an incorruptible reality, a reality located far beyond the needs which the body knows in its daily loves and fears and practical contrivances. To feel that he can reach towards these timeless and marmoreal certainties lifts a child or a man out of the *Angst* and dubieties of our feckless age; and even ' education for citizenship ' seems to mean finding and keeping to one's place in the scheme of things.

It is well that we should be reminded by Sir Charles Morris, when he compares the fundamental attitudes in Plato and Kant, of the latter's status too as a ' perennial ' in the natural history of Western speculative thought. Sir Charles speaks too of the paradox of Plato's dedication to empiricism as well as to rationalism; for as man and artist Plato was earth-bound, and, earth-bound, he observed and judged empirically. It is perhaps the triumph of the artist in the *Republic* (as yet unchallenged as a text in the professional training of teachers) that makes its presentation of the life of justice and temperance, in harmony with premonitions of the ultimate good, so much more warming and satisfactory than the guidance offered by Plato in the harsher and more worldly *Laws*. The Platonic tradition today, though doubtless it strengthens in some occult way the spiritual pride of right-wing rationalism, is much more important in educational thought for its emphasis on the permanence and worth of certain values—values which are accessible in supra-sensible form behind the curtain of the ideal—than because of the discoveries to be made under this tradition's influence when we " follow," with Socrates,

" the argument where it leads." For some of us, perhaps, it is the Socratic element in Plato, with its reasonableness, and its quiet but implacable demand for unprejudiced vision, and its faith in the triumph of intelligence, which provides the higher inspiration.

Plato's road to the good life is not that offered by any branch of the Christian religion to-day; but, like Christian belief, it *is* a road, and it is designed for those who would be persuaded that life has a purpose which is open to human understanding in all age groups.

Another important body of thought, similarly grounded in the belief in the rational, is to be found in the revival of the intellectual system of Thomas Aquinas. This synthesis of revelation and natural reason has been popularized, for the Catholic and non-Catholic publics, by the works of Etienne Gilson and Jacques Maritain, and it is this intellectual current of our times which is chosen for treatment by Fr. Lawson in Chapter II. Its greatest interest for the educationist lies perhaps in the tremendous emphasis which the *Neo-Thomists* place upon the uniqueness of the individual's being, his indestructible, transcendent personality; and, by extension, upon the proper cultivation of his inner resources. It is to this aspect of Thomist teaching that Fr. Lawson—I think rightly—directs our attention, rather than to the renewed desire among theologians to demonstrate the ties which unite the scientific and the transcendental worlds of belief. *Persona significat id quod est perfectissimum in tota natura*; and in this phrase of the *Summa Theologica* we have hints of the ideas which stimulate discussion in the theological seminary of to-day: the notions of the pre-eminence of the *persona,* its freedom, its responsibility, its high place in the scale of creation or chain of being, and the orderly relations, in a natural world composed of discrete entities, between the *persona* and other objects, all of them subject in varying degree to the rational supervision implicit in the grand design of a creator.

In Platonism and neo-scholasticism a wholesome orderli-

ness and intelligibility are rooted in the very nature of things, accessible to both teacher and learner. The intellect is able to move unfettered in a public universe. But still there is more than a hint of a mystery which veils the secret of the control or management of the will. The universe *can be* an open book to those who have developed a bent for reading in it—learnt, that is, to collaborate with the mind of the teacher and draw upon his accumulated wisdom—a "reason why Catholics will have their own schools," to quote Fr. Lawson. And for the Platonist too the intellect needs the right kind of guidance; his spiritual world offers little scope for the autodidact.

In *pragmatism* again—at any rate in the aspects treated in Chapter IV—I think it may be said that reason and a coarse kind of optimism still prevail. Reason is limited to the use of inference and offers no final perspective; the pragmatist has no use for a *logos* of supernatural dimensions, no need for a divine fluorescent sealed for man by a higher power in the veins of creation; he recognizes no redemption from a common order of experience. Reason is a name for the constructive ability developed by a branch of the order of Primates; and each of us makes his reason, with such help as teachers can provide, as he goes along.

The educational theorist may choose to regard this mental ability as an evolving *logos.* It can be a very powerful notion. Indeed, the pragmatic attitude to mental growth and its potentialities spreads far beyond the recognized domain of John Dewey and his followers. It will be noted that Professor Reid (Chapter IX) draws attention to one aspect of pragmatic thinking which links it with another and quite different attitude of the spirit that has gained a powerful hold on some contemporary teachers and publicists, *existentialism.* "Pragmatism is strongly influenced by science; existentialism points the opposite way. But in both there is a central emphasis upon what the Americans first called 'involvement.'" Like the pragmatists, existentialists "make activity, engagement, commitment, decision, en-

counter, their central theme." Like pragmatism, and unlike the two great rational schools we have just been considering, " existentialism [Professor Reid observes] is against absolutes, and against the separation of value from fact."

It may also be pointed out that, although the harassed vision of the existentialist philosopher is far removed from that sense of satisfaction with fundamental things latent in the Neo-Thomist outlook, there is none the less in the writings of both the theist and the secularist existentialists the same acceptance of the primacy of the *persona*. The individual *persona* of Kierkegaard and Marcel may not look quite like the transcendent being, hesitant between hell and paradise on the knife-edge of his free-will, discovered for us in Fr. Lawson's argument, but he is none the less a creature of independent responsibility—if only to his own picture of his integrity—and burdened with a terrible and remorseless freedom of decision.

The significance of existentialism among movements of thought is perhaps not deeply philosophical, for it is so much charged with feeling; it may not, even in its more intellectual manifestations, have much to say to the educationist about the principles of his craft. But there is no doubt that, in aligning itself with Kant in his insistence on the autonomy of the self, and in his further insistence upon the duty of the thinker to achieve a critique of experience unassisted by any systematic knowledge of reality—in all this, maybe against all reason, the existentialist is making his passionate claim for the crucial nature of his individual acts of choice. And we cannot but be impressed by his sincerity. He achieves his intellectual appeal because he makes this demonstration in conformity with one of the most powerful protests of our time—I mean the intellectualist revolt against scientific detachment; against the ukase of blind historical causation; against the easy smugness of sophisticated relativism; against all that objectifies or pigeonholes experience; and against all norms that possess authoritative sanction. One hears existentialists of the religious

wing condemn the atheists on the opposite wing as " totally unexistential." [2] From his side, Sartre has declared that " existentialism is *nothing else but* an attempt to draw the full conclusions from a consistently atheist position " [my italics].[3] But " truth," as Kierkegaard asserted, " is subjectivity "; and this at least seems to be common ground.

Personal choice, action for action's sake, affirmation of purpose in self-commitment—these demonstrations of the self's independent existence, embodying so often the sort of life-criticism nourished by the sensitive intellectual (and characterized so brilliantly in Mr Colin Wilson's vigorous study of *The Outsider*), can, as is hinted by Professor Jeffreys in Chapter III, be symptoms either of a will towards constructive sincerity or of a frustrated endeavour to escape from the cell-life of spiritual claustrophobia. The distinction is not always easy to make. But in any case, the task of the teacher is to instil in the pupil the belief that, faced with any conceivable circumstance, he must act as a free being, and that all his decisions are (in the phrase employed by Professor Jeffreys himself in the title of one of his books) to be " Beyond Neutrality."

Emotional and intuitive as this frame of mind shows itself to be, and variable and moody as are some of the exponents, the practical implications of such *doctrine* are not so strange after all. They certainly have something in common with the attitude of respect towards the sanctity of the unique " presence " of the pupil demanded by the philosophy of education in Fr. Lawson's Chapter II. It will not perhaps escape the reader's notice that Professor Jeffreys, who is examining the standpoint of the Christian existentialist, is providing in his last few pages a moral setting for the teacher's activity not too readily distinguishable from that described under Neo-Thomism, except that the latter can apparently dispense with the Grand Inquisitor's fateful

2 Reviewer in *The Times Literary Supplement*, December 5, 1952.

3 Jean-Paul Sartre, *Existentialism and Humanism* (translated P. Mairet, 1948), p. 56.

examination of the pupils' attitude to destiny which a rubric in the tragic syllabus of Professor Jeffreys' authorities seems to demand.

Most British existentialists are theists; their philosophy seems in some way to provide knowledge by faith, and is a kind of learning by doing. On the Continent the progress of the movement has been inspired, it would seem, as much by powerful anti-religious feeling among intellectuals as by anti-intellectualism among Christians and Jews. The interest of all these affirmations for education is related to what I have referred to earlier as beliefs about the nature of man. Where does man stand in nature? How is man related to his fellows? What are his powers? How enhance them? How evaluate their uses? The critics of those whose atheism, like that of Heidegger and Sartre and Camus, is built into their existentialism, in company with the critics of those schools of existentialism which descry Providence at large in the universe, have a few difficult questions to pose. One, perhaps, is unanswerable. How, without special revelation or privileged insight, and of course without scientific proof (which does not interest them anyhow), are existentialists able to speak with such feverish certainty about man's fate, his destiny—his doom to carry alone these heavy burdens of choice and responsibility? How is it discoverable that man is and must be the creator of his own values? It would seem that even the atheist has some knowledge by faith, a knowledge which forces him into commitments, and presumably releases him for recommitment to opposite causes if the first fail to yield conviction in action. Perhaps it is useless to try to analyse indescribable decisions. The existentialist remains free to opt, and apparently free to re-opt, among all possible forms of commitment. The promotion of this freedom is the central purpose of his educational policy.

We are left to consider the approaches offered by the men and women who have no use for faith and no claim to knowledge by intuition. Faced with the question, " How far can we find a fundamental purpose prior to and behind the

life and lessons of the senses?" they reply that it is useless and improper to seek information beyond the scientific data.

For scientific humanism and dialectical materialism "the nature and destiny of man" have no particular significance. At the worst there seems a kind of cosmic impertinence about the way in which the words are fashioned. At the best they could fall back on the devices of logical positivism and borrow the phrase indulgently framed by Wittgenstein for religious vision, and proceed to describe as "a special kind of nonsense" the use of words like 'destiny' in relation to members of an arbitrarily selected biological species.

What it is becoming customary to call personalism is lacking in these materialist ways of thought; and we ought to expect theories of education from them which would strike us, perhaps, as cold and remorseless in their neglect of the *persona* of individual man. Would this expectation be justified? I think not. In one case the word humanism betrays the fact that the claims of the human animal receive sympathetic consideration; and when we turn to the second, experience shows that a quasi-supernaturalism, clearly able to induce a species of religious fervour or loyalty, has its home in the system of ideas about natural development in the faith of dialectical materialism.

As will be seen from Professor Lauwerys's treatment of *scientific humanism* (Chapter VII), those who share the outlook of reasoned optimism which it imports into the framework of straightforward naturalism have a great deal of common-sense advice to offer to the student of educational thought. It is possible, as Professor Lauwerys himself hints, that a closer analysis of the fundamental propositions, a more careful discussion of the implications of this interesting combination of respect for scientific causality with belief in humanity's powers, would yield some new matter for theoretical debate, and maybe help to tease out some of the presuppositions of the stereotyped thinking of the textbooks on education. The public are already acquainted, through Mrs Margaret Knight's broadcasts and writings,

with the form of compulsion which nowadays urges large numbers of technologists and teachers and students of social affairs to testify their desire to proclaim the uses of the good life on premises which shall not be alien to the spirit of scientific rationalism. The interest for Western thought of certain at least of those strands in scientific humanism is that, like the somewhat involuted discussions on human relations and norms of behaviour to be found in pragmatism, the argument goes far beyond the verifiable findings of natural science. It claims to bring fully into the picture the tests and proofs upon which the merits of personal freedom, tolerance, kindness, and the democratic outlook can be held to rest. Here, once more in the history of philosophy, is an attempt to secure a rational faith on a footing of moral preferences. It is not to be expected, in regard to all this, that the strict disciplines of logical positivism offer support to scientific humanism, though, according to Professor Barnes (Chapter VI), there would be no overt criticism outside the lecture-room.

The scientific humanists, as fair-minded agnostics exasperated by the lingering pretensions of ancient wisdom, began their career, one might say, in the days of Spencer and Huxley, if not before, by acts of revolt and repudiation against established humanism. This older humanism is still the acknowledged enemy, as Professor Lauwerys clearly indicates. But it will be seen long before the end of his chapter that his stress is on humanism, on the use of all knowledge, and especially of scientific progress, for the betterment of man's estate. There is even a suggestion that, while fortifying young citizens to meet the hazards and comforts of further scientific advance, the scientific humanist teacher will also be reinterpreting traditional values, founded by classical humanism, in an idiom better suited to the modern understanding.

Above all, we are struck by the emphasis placed upon sobriety of thought and statement. Anything suggestive of mysticism, or 'higher' or 'inward' meaningfulness, is dis-

liked—an attitude which is no more than the natural sequel to the disavowal of belief in ideas as entities subsisting in their own right. Consider collections of people. A human group, whether church community or political party or the first year of the sixth form, is nothing more mysterious than the co-operating personalities of the constituent members. To attempt to breathe independent life into group 'movements' or social and economic 'forces,' an exercise in which sociologically minded educationists are a little prone to indulge, is (to borrow Professor Lauwerys's words) no more than "the re-ification of abstract concepts." Scientific humanism, nominalist through and through, is the enemy of social obscurantism, however disguised, and is, I think, a little distrustful of all social planning or educational Utopia-building.

Dialectical materialism, being materialist, has also explicitly repudiated rule by the idea. Engels and Marx took the idea and threw it right out of Hegel's dialectical philosophy, and substituted physical and economic events. In the well-known words of Marx, "It is not the consciousness of men that determines their being, but on the contrary social existence that determines their consciousness." This is not to say that consciousness is regarded as anything less than the most powerful *instrument* of nature that has yet emerged. Soviet educational policy certainly does not belittle the uses of the mind. Without its constant presence humanity could not direct itself to what Professor Acton (in Chapter VIII) calls the Promethean ideal of the Marxist state—that is to say, the subjugation of the material universe by the classless society. So little is known in this country about the applications of Marxist ideology to social and educational theory and planning that one may easily fall prey to the mistaken belief that this outlook is to be viewed as some sort of determinism, a mass repudiation of creativeness and novelty in the universe; in opposition to all high aspiration. The reality is far different. Aspiration, in this ideology, may not extend to the higher forms of reflection and imagina-

tion; but, even so, a great deal of what currently is deemed to be of the very highest value (for instance, in the minds of people in our colonial territories), such as the infinite expansion of resources, the abolition of all poverty and all social rank, mammoth public works, literacy for all, the conquest of disease by science, is offered. " What is being proposed," says Professor Acton (who clearly does not himself underwrite the probability), "is that man is consciously to remake himself."

The promised benefits I have enumerated are not viewed in Marxist circles as the blind products of a mechanically impelled universe. They, together with all the other amenities of the classless society, are to be among the prizes offered to those communities which will, so to speak, collaborate with the forces engaged in the dialectical process of the world's development, and will consciously align themselves with the right-minded team. Dialectical materialism, whatever its name may suggest, has of course a metaphysical side. Professor Acton explains that tension and a kind of constructively disposed contradictoriness are held to be lodged in the natural fabric of a universe of material origin. Even at the root of things, in the humble atom (as have we not reason to know?) the electrical charges are in dialectical tension. And the whole of reality, physical, biological, economic, and social, is fraught with elements of tension; and proceeds to throw up successions of changes, without any other stimulus than its own propensity to become something different—a propensity which, in view of its respectable starting-point in the history of logic, is called 'dialectic,' but is perhaps really better described as emergent evolution. The recent strains and stresses—themselves no doubt manifestations of the dialectic—over Dr Lysenko's biological findings exemplify the ways in which minds in the Soviet Union handle discussion in the natural sciences. And similarly in the generalissimo of all the sciences, the study of economic society, the processes of change must be identified and studied within the discipline of the Marxist–

Leninist thought structure. Men, it is believed, have not yet evolved, except perhaps in the most forward-looking groups, to a realization that the state of truly formed humanity still lies ahead. It is the task of education, as of all institutional provisions, to hasten the day when society ceases to be tormented by its inherent dialectical contentiousness, and, by undergoing change, emerges, it would seem, beyond the stress-barrier into a state of harmony, perhaps only realizable when capitalism and war have been everywhere liquidated. But, unless nature betrays its own principles, some new and as yet unforeseen dialectical unease, or trouble-potential, unconnected with the control of the means of production, will assert itself; or so theory seems to proclaim. It is unprofitable to peer too far into such a future. Just how the ultimate classless society will effect itself no planner or theorist, however well schooled in Marxist thought, should presume to say.

It is plain to the eye that the formal instruction in ideology, together with the various kinds of 'polytechnical' training which are now to be found at nearly all levels of schooling in the U.S.S.R., is in fact a response to requirements laid down by official attempts to interpret the needs of society within the framework of dialectical materialism. Caution, however, is necessary: not all acts of educational policy, however rigid the public ideology, are inspired by notions conceived outside the school milieu or outside the practical necessities of a neutral statecraft. Thus much of the present insistence both on science-teaching and on the teaching of the practical applications of science might admittedly be observed in a planned society of any political complexion, the purposes of which were linked with an expanding productivity scale, calling for masses of skilled operators who not only knew how to work the machines but knew how the machines worked; and perhaps be equally a cause of misgiving in our own country. Foreign observers hitherto have not displayed much skill in assessing the importance of the motives which inspire the present régime of

polytechnical teaching. I do not think dialectical materialists are more ideologically prone to encourage technical education than are scientific humanists. Both are ardently committed to the conquest of nature.

Of course, there have been several major changes in Soviet educational policy and its supporting ideas since the 1917 Revolution. Not all, however, are explicable as changes in philosophical tenets; and, indeed, it cannot definitely be asserted that dialectical materialism has its own privileged battery of educational principles. When at length an approach can be made by relatively unbiased investigators to the changes undergone in the methods of teaching, methods of school selection, and attitudes towards the pupils, since Deweyism went out of currency among the theorists in Russia during the nineteen-thirties, then we shall be able to speak with more confidence about the connexions between ideological theory and practice.

A student of educational principles should not allow his contempt for ways of thought which are antipathetic to his own to persuade him into neglect of their influence in forming the outlook of other men and women. To appreciate their force he must look, with such sympathy as he can bring to bear, into the minds of those he regards as wrong-headed. Above all, if he wishes to keep his bearings in this world of quick changes, he must rid himself of the belief that ideas which have worn well in his own society and among his own set will exercise the same appeal elsewhere. He may find it hard to believe that the challenge of Marxist thought ought to be taken much more seriously than the threat of a hot war; and that people who form educational opinion in parts of the world already beyond the pale of Western influence may be curious to know more about intellectual systems that claim to transcend the limitations of bourgeois philosophy or the classical thinking of the ancient East.

At this moment the fascination of Marxist ways of thinking and forming opinion is explicable partly by reason of the sheer magnitude of the Russian experiment and the

assurance of doctrine which seems to inspire it; partly too in that we observe a conscious attempt on a big scale to bring a national system of education, framed as it is to strengthen the trend of social evolution in the minds and careers of the pupils, into close relations with a dogmatic system of thought comprehending all nature and all human purpose. In the West such portents should also make a claim upon our interest because, if one pauses to think, there is apparently nothing to hinder the continuing spread of Marxist principles except the presence of other forces of the mind having equal cogency and appeal.

We thus find ourselves obliged to take stock of our philosophic presuppositions and to survey some of the barren areas of our minds which should rightly contain the *schemata* of a reasoned attitude to the educational requirements of the present age. I suppose one of the purposes of this collection of papers is to show that any such *schema*, centred (as of course it must be) on one's inward appreciation of the processes involved in teaching and learning, has to be built in the main from principles taken from a larger world of human beliefs and ways of justifying them.

This course of public lectures was given in the autumn term of the session 1955–56 in the assembly hall of the University of London Institute of Education, under the general title "Intellectual Currents and their Educational Message: a Series of Critical Appraisals." The title of Professor Mace's lecture was originally "Operationism and Behaviourism." The following kindly consented to act as chairmen at the lectures: Dr J. F. Lockwood, Vice-Chancellor of the University and Master of Birkbeck College; Dr G. B. Jeffery, Director of the Institute; Dr P. S. Noble, Principal of King's College, London; the Lady Nathan; Mr S. J. Worsley, Chairman of the External Council; Miss Catherine Fletcher, Principal of Furzedown Training College; the Rev. H. Trevor Hughes, Principal of Westminster College; Professor L. Arnaud Reid; Mr A. C. F. Beales.

I

The Perennial Appeal of Plato

by Sir CHARLES MORRIS

IN one lecture of this kind I can only hope to strike a note and to say one thing. It will not be easy to strike a clear note, because modern opinion is not naturally favourable to Plato. But the real problem is to choose the one thing that I shall try to say.

I am sure that you will not wish me to concern myself to attempt to say something new. It is now sixteen years since I ceased to be a practising philosopher or scholar of Greek; and it would not become me to seek to array myself in modern analytic or positivistic dress. Certainly I should not be comfortable in it, nor would it suit my deportment. With your permission I shall rather try to determine, and to set out for you as well as I can, what remains in my mind's experience—after twenty years of reading Plato with succeeding generations of able young men and women before the War, followed by fifteen years of practical life and comparative abstinence from Plato—the most valuable and compelling idea, or constellation of ideas, in Plato's philosophy.

Plato was a great philosopher—a great philosophical technician, and also, of course, more than a technician. I suppose that in all the great creative minds there is some tension, some conflict of ideas or of purposes, which drives the mind to white heat in its activities. Behind the technics, however perfect, however brilliant, there is always something real and important going on, some frightening obstacle

being surmounted, some deep purpose being served. At any rate it was so with Plato.

In the first place he was a passionate rationalist, and also —though this will seem a paradox—a passionate empiricist. Both Plato and Kant, who in fundamentals have so very much in common, were dedicated both to rationalism and to empiricism. Kant's empiricism was a sophisticated, philosophical empiricism. He forced himself, for good and stated reasons, for ever to remind himself how much we owe to experience; how impossible it is for us to advance to any significant knowledge or faith without it. But Plato's empiricism was the natural empiricism of the artist. Devoted as he was to geometry, with its unearthly figures and numbers, he used his eyes and ears and was moved by the lovely sights and sounds of this world. It was only by a struggle that he could obey his own doctrine and turn his affections away from the lovely furniture of earth to higher things.

But there was another tension also in Plato and Kant. Both had fundamental convictions about which they felt passionately, and which their critical and analytical power never removed or even breached. Kant, as every one knows, believed in the moral law, the individual as an end in himself, and the kingdom of ends—this latter notion having much in common with the concept of the communion of saints. But though he was a man of faith, and indeed a prophet, he was by vocation and devotion a philosopher. He wanted to see things straight and under the rules of logic; but he also wanted, like everybody else who believes in his intellectual and spiritual visions, to provide a rational basis for his deep convictions. He struggled all his life to do this, but it is fair to say that he never quite succeeded. It is fair to say that he was too good a philosopher to succeed; but he was also too good a philosopher not to make a most brilliant attempt at succeeding. If you want to know, as most people of moral conviction do want to know, whether it is possible to succeed in proving the things which Kant wanted to prove, you should read and study Kant.

Most Protestants, and I think all Puritans, want to know just what Kant wanted to know. They want to know about the pure moral law. Can its existence be defended against the acids of modern criticism and against the infiltrating tactics of modern science? If it exists, can it be shown to be purely rational, and therefore derived from the highest part in man, or does it depend upon his passions and emotions? If it exists, and is purely rational, is the moral law enough? If not, and the fear and love of God is necessary in addition to the consciousness of the moral law to secure a moral universe, does the existence of the moral law prove the existence of God? And so on. Naturally, Kant has a perennial appeal.

The vital convictions of Plato were different from Kant's. He did not admire the moral law. Rather for him it is ' because of offences that the law cometh.' He thought that it was the true nature of the human mind to love the good and to want it. With Kant it almost seems that in order to be really good you must want to do something wicked, and suppress your desire. But Plato in his early life thought that the secret of virtue was ' to desire the right things '; and he always thought that to live virtuously was to live in accordance with the nature of the soul. Like all high moralists, he appreciated that to live the good life requires a great struggle for man, perhaps a struggle which is just beyond his powers; and he thought that education must start up this great struggle in the individual soul and must equip him to continue that struggle inflexibly. Plato's whole scheme of education was designed to do this.

Of course he thought it was no simple matter. He was under no illusions that the body could be discounted or ignored. The body must play its part, though eventually it must be left behind. The soul may have been aware of pure and beautiful ideas before birth; but these beautiful ideas could only reach it again in life, between the cradle and the grave, through the body. Through the sensing of circular things you can come to the idea of the circle in heaven;

and through the perception and love of beautiful faces and beautiful people you can come to the idea of pure beauty. When you come to acquaintance with these pure ideas you will be moved by them in the life of action, and, in the end of all, more earthly motives will fall away and you will be moved by them alone. Thus, as everybody knows, Plato had a very high and exacting doctrine of love. Also associated with the same basic scheme of thought he had other high doctrines. For instance, he thought that you should do good even to your enemies.

He held such high convictions, in fact, that in many ages he has been thought of as the 'divine' Plato—a Christian four centuries before Christ. He was thought to be 'divine' not only because of his great moral insight, but also, I think, because he had great persuasive and missionary power as a prophet. Through the ages he has not only been one of the greatest of all influences on the Christian doctrinal traditions; he has also moulded many Christian lives.

I have said that Plato is of perennial interest to those who care for education because he was a great philosopher. I suppose it is possible to be a great philosopher without being a good teacher, or exerting much influence on those who teach. But, contrariwise, I do not think it is possible to be the leader that Plato has always been in the world of education without being a great philosopher, or at least a very good one. Education which is truly itself must seek to touch the depths; and the thinker who has no traffic with the depths can do little more than teach a trick or two to those who seek to educate.

But there is more in it than this. In Plato's philosophy there was a special reason also why he should be able to do all that he has done; the founts of his thought were very near to the roots of the educational problem.

Plato knew precisely what he wanted to happen to the individual man or woman during life, and he thought that nothing but education could make this happen. He believed in good heredity of course; but no man's heredity could

give him a through ticket to heaven. Far from it; the greater a man's gifts the greater his dangers. Intellectual power is as necessary to the evil man as to the saint; and the training of the intellect in youth can as easily—perhaps more easily—make a Lucifer as a St Francis. Yet Plato thought that the training of the intellect was the only way to goodness, and there was no other way. In a word, education was all in all.

Here too there were tensions in Plato's mind. First of course there was Socrates, a great teacher, put to death for 'corrupting the youth.' Plato, who was nineteen years old at the time and loved his master, sprang to the defence. He may or may not have thought at first that it was an easy task for a poet, but he found that it became a lifetime's work for a philosopher; and he produced, of course, not a forensic apology for his day and generation, but a defence which would serve for the ages. Plato could only show the integrity which Socrates taught him. Was his master really a benefactor of youth, an educator? For an answer it is necessary to know what education is; and in experience Plato found what he thought education was by a critical study of the work of Socrates.

True, Plato the artist shows us Socrates the man: Socrates at a party, Socrates in the snow as a soldier, Socrates thinking and talking with the young men he loved as they walked by a mountain stream, Socrates being patient with a difficult wife, Socrates in prison with a chance to escape, Socrates drinking the hemlock. In the minds of generation after generation of students the story of the *Phaedo* has lain side by side with the Gospel story of the Passion and Crucifixion. Here was the picture of a great man and a great teacher, and no picture has ever been better done.

But a story or a picture is not argument. The poet or the painter may start an argument in the reader's mind; but the philosopher wants to conduct the argument himself, to conduct it and tidy it up in detail. So in Plato; mixed with the story and the poetry is analysis and close examination.

So far as it is possible to set things down clearly and exactly, they are so set down; where proof is possible, it is given; in matters which it is not possible to demonstrate, we are told as precisely as possible just where we stand. Socrates had always taught that it is never possible at the beginning of an inquiry to know where we shall arrive at the end. In springing to his defence Plato may have thought he was embarking on a simple exercise of rhetoric; but he ended with a complete philosophy, having at its core a great theory of education.

Was Socrates rightly put to death? The answer should have been easy. Socrates was a good man; an earnest man, self-controlled and courageous, a loyal and lovable friend, a hard worker; and of course he meant well. He thought no evil, and he desired no evil for anyone. So surely the record of Socrates' life answers the question.

But to Plato—as since Plato to all of us—Socrates was also a *great* man; and it is no part of the doctrine of Greek tragedy that only evil men are put to death. Here, as again in the Gospel story, we are in the neighbourhood of a mystery; and there may in the end be something of the mystical about Plato's power with the reader. But first he merely plunges deeper into analysis and argument.

In this argument we again come up against Plato's empiricism. It is not only that he is troubled by the record : Alcibiades and Critias, those outstandingly able young pupils of Socrates, came to no good end. Could it have been prevented? Or might it even be that the fearless, almost reckless nature of their education at Socrates' hands almost invited such meteoric spirits to go astray, when some less ambitious and unusual teaching might have kept them safely in the grooved orbit suitable to their stations? These are questions to which Plato had to find answers for himself; or at least he had to find, consistently with this record, an answer to the philosophical part of these questions. Were Socrates' methods of education really right? Were they based on a true view of the nature of the human soul?

But this problem of the record was not all. Plato really loved young men, as anyone may see from his treatment of Glaucon and Adimantus at the beginning of the *Republic*. He knew what went on in their minds, and the dangers that beset them when with impulsive curiosity they applied themselves to the problems of the universe. He knew too how inescapable those dangers were. Intellectual curiosity must be encouraged, because without it there was no way, in his view, to intellectual and moral maturity. Here was an unavoidable test or crisis, a kind of agony of youth, which had always moved Socrates profoundly wherever he had seen it in progress. Socrates studied this agony in the experience of the young men he knew and taught, and Plato studied it again in examining and defending Socrates; and they both did so because they cared for young men and for education.

In Plato's writings Socrates wanted above all that the young men whom he taught should come to virtue, to the good life. He knew how he wanted them to live, what he wanted them to come to believe. He wanted them to set their affections on the things of pure reason and not the things of the body; to love the pure form of beauty; to do good even to their enemies; and so on. He had no doubt about these doctrines; he never changed his mind about them. Yet he did not feel entitled to set out to indoctrinate them in these things. In all his dealings with them he felt bound to his technique of 'midwifery.' He must help the young to elicit and clarify their own questions and to follow the argument where it led. The individual must think for himself, and find truth for himself; if he seemed to be coming to error or delusion rather than to truth, he must simply be inspired to question more persistently and more profoundly. There was no other way by which a man could educate himself.

No careful reader of Plato can doubt that he, no less than Socrates, saw the poignancy of this, in some cases the tragedy of it. Even with the greatest of teachers some young

men came to grief under this treatment. Plato gave most careful consideration to this possibility of catastrophe; he tried of course to discover what its causes might be when it occurred, and how it could be avoided. But I do not think he ever deceived himself into thinking that it always could be avoided. Here was a risk which must be taken. The inevitable presence of the risk must make education an infinitely painstaking business, and the precautions which the parent and teacher must take must start in the earliest days after birth, and must continue well into maturity—so much so that education almost becomes the activity of a whole lifetime. It is almost identified with that good life itself for whose sake it exists.

Yet though it is hardly possible to exaggerate the place given in Platonic education to Socratic 'midwifery,' it is possible to be misled by it. Plato's doctrine of education does not simply announce that the young must be induced to ask themselves questions and then follow the argument where it leads, and leave it at that. Both Socrates and Plato had their own answers to the fundamental questions which the young must ask, and they thought it their duty as teachers to give these answers, and to clarify them and demonstrate their truth as far as they were able. Of course, their own answers, their own whole systems, were in their view consistent with the 'midwifery' theory of education. The 'midwifery' theory, like any theory of education, has its own implications for logic, for morality, and for metaphysics; and Socrates and Plato sought to set out these implications as clearly and persuasively as they could. If they had not done so Plato's writings would not have had the perennial value for philosophers of education that they have proved to have.

If intellectual questioning and the intellectual pursuit of true answers are primary to education, if these alone provide the road to the good life and to happiness, then there are certain inescapable conclusions to be drawn about the human soul. In the first place, the activity of the intellect

must be able to lead us not only to knowledge of what is true but also to knowledge of what is good; it must teach us not only about the world of fact, but also about our duty; not only about what is, but also about what ought to be. More than this, knowledge of what is good must be sufficient in itself to lead us to pursue it; knowledge of our duty must lead us, in spite of all temptations by the way, to perform it. Pure reason must not only be able, of itself alone, to show us what we ought to do; it must also be able, of itself alone and in the face of all appetites and passions, to be the master of our souls and make us do it.

If these things are so, Socratic 'midwifery' could be the essence of education. If these things are so, Socrates was justified in dealing with the young men as he did, in seeking to educate them by free self-questioning and fearless intellectual analysis in the pursuit of true answers. Thus the attempt to find a defence of Socrates that would stand for all time became the animus of a whole philosophy.

But it was not of course easy to prove these things. There can be no doubt that Plato believed them to be true; and he never ceased to try to prove them. No doubt he realized that his attempt to persuade the reader of them never quite reached the full integrity of proof. But he never abandoned them; nor, I think, did he ever compromise with them.

This does not mean that there is any lack of elaboration in his system of education. He thinks that education must start with the mother before the child is born—she must listen to the right kind of music, and have the right kind of thoughts. After birth and in the early years the choice of music is important for the child, and also the choice of poems and stories. There must never be any compromise with untruth or ugliness. Contact with evil can never do anything but damage; it can never do us good. Meanwhile the body must be cared for, and even moulded, from the very day of birth. On the other hand, mother-love is not of any importance; organized scientific care and education are what are needed for the child, and the mother has a life of

her own to live as much as the father. Moreover, family life is by the highest standards obstructive to virtue; in particular it is too much bound up with too great a desire for property and money, and on other grounds also is a cause of anti-social actions. Plato does not even *contemplate* romantic love, and he thought that the cultivation of family affection was not compatible with high virtue. For him too the man who aimed at perfection must 'leave father and mother' and cleave to a very remote good.

From the beginning the training of the body must utterly subserve the needs of the development of the soul. So too must the training of the mind. Even the contemplation of beautiful things must be controlled to serve the final purpose; even the study of the starry heavens and of pure number must be so contrived as to lead the eye of the soul away from the things of the body—even away from the things of the intellect—to the pure contemplation of the Platonic Form of the Good. From the lowest to the highest stages of education, while there is brought into play a very high degree of genuine observation of the real human being, every detail is determined for Plato by the very clear end and purpose which he has in view.

However, the details of Plato's doctrines about education are not my concern in this lecture. My point is rather that he *has* a doctrine, and, indeed, what we may call a high doctrine. He has, as I have said, the empiricism of the artist, and is a considerable observer of human nature. His characters are real characters; his eye for human failings and the way in which vices grow out of these is very perceptive indeed. In addition, like Socrates, he has the born teacher's love of youth, and his vivid interest in watching and cherishing the young in the development of their powers into maturity. But in addition he is a devoted idealist, and an idealist with a clear head. His methods of education will take account of the real nature of children, and later of young men and women; but they will also be designed to lead the young just where they ought to go.

Plato thus has an appeal at all times, because he has a high conception of the nature of man, and it is always evident that his master-plan—by no means unrealistic in many of its stages—is at every point designed to subserve this high philosophy. But there is more to be said even than this. There is much in the main architecture of his ideas and ideals themselves which has appealed and will continue to appeal to many teachers in all ages.

Plato—quite apart from the historical order—is not a Christian in spirit. Nothing could be more alien from Plato, I suppose, than the parable of the Pharisee and the Publican; and St Paul is without doubt right in thinking that to the Greeks generally—and Plato, like Socrates and Aristotle, was very much a Greek—the doctrine of the Crucifixion would have been 'foolishness.' And these things are fundamental in the spirit of Christianity. But there is a great deal in at least one aspect of Christian doctrine which has been highly Platonic. "Set your affection on things above, not on things on the earth." The body has an important part to play for Plato, and very much attention must be given to it to ensure that it plays its part properly. But, in the end of all, the influence of the body upon the life of the educated and good man entirely disappears. The good man functions as pure reason; the needs and desires and emotions of the body are under complete control—indeed, they have been under control so thoroughly and for so long that to all moral intents and purposes they no longer exist. In regard to the complete emancipation of the spirit of the good man from the body Plato's stand is quite without hesitation or reservation.

The practical moral and educational implications of this are of course austere. Here there is nothing of Aristotle's mellow tolerance, and nothing of Protagoras' humanistic relativism. This latter view is brilliantly stated and explained by Plato; but he will have none of it. For him nothing but the best will do; everything else is just wrong, and there are no two words about it. Nor is there any doubt about what

the best is. There are patterns laid up in heaven, and if we will discipline ourselves sufficiently we can see them. There is no talk in Socrates or Plato about some action being 'right in the circumstances,' or 'right for the particular person who did it.' Plato's teachings are straight and without qualification.

This does not mean that Plato does not try to understand why particular types of men—for instance, the man whose sin it is to covet honour, or the man who will do anything in pursuit of wealth—do the evil things they do, and become the kind of people they are. Indeed, he shows he has both the artist's and the philosopher's eye in the brilliant pictures he draws of such characters. But it does mean that his interest in human nature and his ability to see and understand the springs of human action did not lead him to compromise in his views about goodness. Good action might only be possible in heaven, or in Plato's Republic; but this did not make him reconsider his views about its nature. He did not compromise at all. Poet though he was, he thought that the moral influence of poetry was evil; so he rejected the poet—"crowned him with wool, and sent him to another city." This was characteristic of him; and this unrestricted absolutism makes his educational teachings fit into a systematic whole, renders them predictable, and endows them with a very impressive moral standing.

Strangely enough, his teaching was not at all like the traditional Christian doctrine about the right relations between the sexes. He did not hold that the gratification of the sexual side of human nature was a particularly evil thing. He did hold, as everybody knows, that high regard should be paid to the principles of eugenics; that the pattern of life and work for women should be very much more like that of men than it was in the Greek society of his time—and in effect more than it was in our own society fifty years ago; and that the highest form of love, which is the secret of the good life, should in its full development owe nothing to the body but be a thing entirely of the spirit. Since he was

not a Romantic, and the poets whom he quotes and on whom he built so much as moralists and prophets were not Romantic poets, he did not altogether realize how much he was giving away in this doctrine of Platonic love. Like Aristotle after him he thought that the highest and fullest love owed nothing to difference of sex, but was more akin to an exalted form of friendship. Lovers should by the very nature of love have a common daily life, but what was involved was a common life of the spirit; and in the fine flowering of this common life the body, which had played its due part in the processes of education and development, had in effect fallen away and left hardly a trace of itself behind.

Yet, as I have said, in order to preach this doctrine Plato did not find it necessary to take a highly repressive view, still less a panic-stricken or hysterical view, about the enjoyment of sexual pleasure. He did not romanticize it or believe it, as in the modern faith, to be very closely bound up, perhaps quite inseparably bound up, with all the highest manifestations of the human spirit as well as with the lowest. For him the sexual life was simply one part of the body's life. In this it was like the pleasures of the eye. The human eye can debauch the spirit by being fascinated to gaze upon some scene of horror or shame; but it can also see the starry heavens and the great works of the painters and sculptors. It plays its great part in leading the vision of the spirit upward; but in the fullness of time, in the final contemplation of absolute beauty and absolute goodness, the body's eye has fallen away, having no longer a part to play. This is a hard view for us to accept, but it is what Plato thought. Intelligible to us or not, the Platonic is one of the high philosophies.

In my view this is the basic secret of the perennial appeal of Plato to those who care for education. His educational teachings are informed by his philosophy, and his philosophy was hammered out of the experience of a very interesting life by a uniquely gifted and passionately sincere man. His master before him was one of the world's great

teachers; and the death of Socrates is one of the world's great stories. Plato himself, a natural philosopher in any case, was knocked endwise in his mind at the age of nineteen by the shock to him of a tremendous event—the legal execution under democratic justice of a beloved friend and a very great and good man. It may be that the age of nineteen, the beginning of university life for most young men and women under our system, is the right age for such a shock. Certainly this fact has given Plato a very personal appeal to those of us who have been young either in 1914 or in 1939,

> . . in the day when heaven was falling
> The hour when earth's foundations fled.

In addition to this Plato was a great artist; he can lead us where he wants us to go in the way that a poet can; he was fascinated, as we all are, by the nature and manner of life of the artist, and most of his most brilliant thought is based upon his analysis of the mind of the artist and his aims and values; and lastly he sees the " furniture of heaven and earth " and the bodies and souls of men and women with the eye of an artist. He sees the physical bloom of youth and youth's generous impulses and painful sincerity; he sees the serenity of Cephalus, as Sophocles might; and he sees the fullness of mature goodness, entirely without insipidity, of Socrates. He is in a word a most gifted philosopher manifestly building a fearless system of philosophy on an immensely interesting and various experience.

But in addition his philosophy in itself has an appeal to those who are concerned to think about education. Other great systems have moulded and informed theories of education. But Plato is neither a little too sensible like Aristotle, nor the brilliant prisoner of his sentiments and fallacies like Rousseau; nor has he such restriction of thought or caution in imagination as may be entailed by the orthodoxies of the great medieval conceptual systems. His great modern rival, Kant, though he is the prophet of the moralistically minded,

is bound to come upon most teachers as somewhat cold and aloof, almost inhuman. The fanatic of duty, that "stern daughter of the voice of God," would rarely make a good infants' mistress, or even, perhaps, a good college tutor.

As against this, Plato is no easy tolerationist or woolly eclectic. Among logicians Plato is a very straight thinker; among high philosophies his is of the highest. But he does not ignore human nature, or take an unrecognizable view of it. Like all high philosophers, no doubt in the end he makes impossibly exacting demands upon it—the things we are ultimately asked to do cannot be done except in Plato's Republic. But it is only in the end, and not until the end, that he asks too much. In all the earlier stages of moral development, and in the earlier stages of educational development, he is demanding, but not too impossibly demanding. He asks too much of us, but in all these earlier stages not very much too much. And throughout he has the very great advantage that he knows just where he wants to go, and where he wants us to go. We know that our guide and mentor is not blind or arbitrary, and we know that he has not lost his way. We know that every detail of his teaching about education is firmly, even meticulously, based on his whole philosophy; and we can see for ourselves that philosophy moulding itself in his untiring and vigorously disciplined reflection upon the experiences of an immensely interesting life.

This perhaps brings me back to the nerve of my argument. It is one thing to be able to talk well of the tricks of the trade in education, or to succeed in demonstrating some strange new law of the growth of the child mind, but quite another to have a real philosophy of education. In our day we find ourselves very much occupied with techniques. This is partly because, with so many scientists about, our generation is rather fertile of techniques, and the very great possibilities within this field of intellectual enterprise make it immensely attractive. Moreover, new techniques can do a great deal of good, and in fact they have done a great deal

of good to teaching in the last fifty years. The human race is the better for it.

But there seems to go with this lively interest in technical devices an unwillingness, perhaps a fear, to ask searching questions about the end and purpose for which we wish to use new ways in education. We seem to be an almost irredeemably pragmatic generation. We want to brook no delay, but to get on, forthwith and continuously, with taking profit from the use of the technical devices which the advance of science serves up to us. We succumb, no doubt, to a very plausible argument. We tell ourselves that philosophers have been arguing for very many centuries without reaching any agreement, and that disputing about questions which cannot be finally answered is very apt to be obstructive rather than stimulative when action is required. We add that *whatever* we may think about ultimate aims in education the adopting and perfecting of this or that technique can do nothing but good; as for instance that whatever be the purpose of secondary schools it can only be desirable to provide good meals for the pupils, or to lead the child by interest rather than to drive him by fear.

This is a seductive argument, and many of us live by it for all the hours of the day. But in our hearts we all know that it will not stand up to criticism, and certainly Plato would have given it no quarter. Whatever may be the patter fashionable at the time among reformers and administrators on the days of the working week, we all of us, including the reformers and administrators, have on Sundays a deep and inescapable need to know where we are going, and where we ought to go. Not many answers have been given to this question at any profound level. Among these few Plato has one which is clear and, though like all the others overdemanding, follows a very attractive approach to human nature.

But perhaps it is quite enough to explain his appeal to our generation that he has an answer at all.

II

Neo-Thomism

by Fr. W LAWSON, S.J.

THOMISM is professedly a religious philosophy. It is closely linked with Christianity, which is primarily a religion; it developed naturally with the expansion of Christianity; and its historical origins are shown in its marked religious character, and also in its systematic completeness.

A brief review of the development of Christian philosophy will be valuable for its indication of the importance of that philosophy in the formation of theories of education.

The Christian message to the pagan world was the gospel of salvation for all men—a statement, in other words, of the inestimable value of the human person, whose worth was established beyond question and without exception by the two facts of his creation by God and his Redemption by Christ. The assertion and vindication of human worth have been the task of the Church ever since: and they are an essential of all Christian philosophy and theology.

Christian philosophy began early to express itself in the terms current in non-Christian philosophies. The acceptance in Apostolic times of the pagan civil authority, and the fact that the upbringing of so many converts to Christianity was pagan, led to the adoption by Christians of pagan culture, which they accepted as in large part the Gentile *preparatio evangelica.* By the third century Platonic and Neo-Platonic philosophy was taken into the service of the Christian Fathers—notably at Alexandria, whose university was the centre of the Greco-Roman culture, and farther west by

Augustine. This adoption of pagan terms had its dangers (as can be seen in the Arian interpretation of the relation between the First and Second Persons of the Trinity; in the Neo-Platonic terms of relation between the Supreme, Transcendent God of Neo-Platonism, the One, and the second and inferior God, the realm of Nous or the Logos) but it had also the advantage of providing a common language of communication between the Christian and the non-Christian.

Succeeding disputes and struggles throughout the Middle Ages produced in the mid-thirteenth century the co-ordinated and clear system of Christian thought known as Thomism, bearing the name and containing the work of Thomas Aquinas. It is not the only possible Christian system. There is a long tradition in the Church of Augustinianism, still maintained : and there are, to take a modern example, the experiments of Gabriel Marcel and others in a sort of Christian existentialism. The vigorous survival of Scotism is manifest in the poetry of G. Manley Hopkins. But Thomism is the most coherent and complete account of the Christian attitude to philosophical problems.

The function of Christian philosophy, as exemplified admirably in Thomism, is expressed in the phrase *fides quærens intellectum*—faith is interpreted and set out in terms of reason, so far as reason can explain the reasonable basis of the Christian mysteries. It is an honourable and necessary task for philosophy, which deals competently with that part of truth which is its proper field.

Thomism is not a mere synthesis of Platonism and Aristotelianism, nor is it a mere Christian adaptation of Aristotle. Aquinas is an original and profound thinker; and to many of the perennial questions of philosophy he proposes solutions deeper and more satisfying than those of Aristotle : and they are the most Thomistic part of his work, and also the most Christian.

His greatest work is the *Summa Theologica.* It would be a mistake to limit Aquinas's writings on education to that part

of his *De Veritate* known as "De Magistro." The *Summa Theologica* is an educational document of the highest importance, because it sets out a complete philosophy of man, stating who and what he is, putting him in his setting and his relationship with all other being, declaring his purpose in life, and asserting how it must be achieved.

Aquinas insists throughout, as would any Christian thinker, on the subordination of man to God. Man's being is a created being, received from the source and centre of all reality, who is God. Aquinas stresses God's efficient causality (which the Greeks had never sufficiently stressed or understood). For Aristotle God was the final cause only, moving the world as its goal or its object of desire: God has no efficient action and no providence over man. Plato does, indeed, outline a doctrine of creation in the *Timæus*, but it is figurative and not explicit; and the action of the Demiurge or creating God supposes a pre-existing matter out of which the world was fashioned, and Ideal Forms as the patterns of the Demiurge's creation. Thomas's doctrine of God as Supreme Being and Creator establishes the ontological dependence of man, and also the providence of God.

Once Thomas Aquinas has acknowledged man's dependence he is much concerned to establish man's relative stability and relative independence.

Man is created in the image and likeness of God. He resembles God chiefly through his intellect, by which he understands things, transcending the here and now and the particular experience, and through his will, with its range of freedom, and consequent responsibility. Man is intelligent and responsible.

Man, moreover, is a secondary cause, with power to act (and not just, as Malebranche says, an occasion through which the divine power acts in this world). Augustine had toned down man's efficiency with his *rationes seminales*, by which whatever happened in this world did so by the emergence of what was virtually contained in this world from the beginning, and by his teaching that man needed a direct

illumination from God to be capable of understanding. Thomas, on the contrary, insists that man's causality is necessary in the world, and that all the illumination he needs for natural understanding is the light of reason.

Man is a co-operator with the divine providence, as it affects both himself and others. That is possible because man is rational and free—that is to say, because he is a person.

This view of man as a person is fundamental in Thomistic philosophy. It is of vital importance in the history of philosophy and of education : and it makes a radical change from the Greek view of man. For Plato man was just the soul, which existed before and after the body, and which used the body as a temporary instrument. For Aristotle man was body and soul; but he thought both of them mortal—all that survived of man was a portion of mind (and what that was Aristotle never managed to explain happily—in one place he suggests it is part of the Universal Mind to which it returns after man's death). For Aquinas man is body and soul, the soul being the constituent form of the body, the co-ordinating element of a living body, with activities in its own right of thinking, understanding, and willing, and with the immortality of a spiritual being : but it is the person who is immortal, and the body will share in the deathlessness of the soul.

The whole of that philosophy of man remains in Neo-Thomism. What is new with it, apart from the freshness and vigour of the flourishing Neo-Thomist schools of Louvain, Milan, Rome, and elsewhere, is the reassertion of personal values and the primacy of man in the visible creation, with a modern emphasis and with applications of the principles of the philosophy of man to the whole course of human life.

Sir Winston Churchill's question, What sort of people do they think we are? is being asked by human beings at all articulate stages of life, in all sorts of conditions. The question comes from workshops, offices, classrooms, concentration camps, countries of mixed race, Welfare States, and

numberless other places. It arises inevitably now that there is no universal and acceptable value assigned to the human being, when the Christian appreciation of man as a person, unique and sacred, is widely denied, and even more widely ignored. There are countless answers to the question, ranging from contempt of human beings to love of them, with complete self-sacrifice. All the answers rest ultimately on a philosophy of man : and it is to secure the right treatment of man, in industry, national polity, international relations, in home and in school, that the Neo-Thomists restate their philosophy and urge that it be lived.

The classical definition of Person comes from Boethius : a person is *rationalis naturæ individua substantia,* an individual substance of a rational nature. Man comes under that definition. He is a person, a spirit free in its determination, united to matter so as to form an individual rational substance. He is therefore immortal, with a destiny beyond time, self-making in the sense that he has to make his own perfection within the scheme of the providence of God, whose perfection is knowledge and love of God, and of created good. In the whole of the visible universe there is no higher being than man. As Thomas Aquinas puts it : *persona significat id quod est perfectissimum in tota natura.*[1] Man is the highest value in the visible creation.

The call to admit that man is a person, and to recognize his personal value, is a call to realism. No other being should be so highly prized in human history and behaviour as man himself. To set a higher value on things or institutions or movements or policies is to have our values wrong, and to be unrealistic. But it is just there that our modern values are wrong, just there that we are unrealistic, with the awful penalties of unrealism looming higher and darker over our civilization. That is why we are urged, wherever the Christian tradition remains, to rediscover the truth about man and to put it into effect. " What the hour demands of us," says Pius XII, is " to stake our all to form the individual into a

[1] *Summa Theologica,* I, Q. 29.

Christian person."[2] The Abbé Pierre's judgment is that his primary work is to restore to man his dignity as a person.[3] The unique value of the person, threatened formerly by excessive individualism and the omnipotence of money, is in danger now from a collectivism which would engulf the person in an anonymous mass.[4] Professor Butterfield thinks we should do well to think and act as though only one value were real, and as though only human beings really existed in our terrestrial order.[5] "We should strive," says Professor Jeffreys, "to promote the kind of community in which human personality is of supreme value."[6]

If we are disposed to respond to appeals of that kind, and to treat every human being as what he is—a person—we need to deepen our understanding of the reality we call person. The definition of Boethius, accepted by Thomas Aquinas and Bonaventure and their followers, contains the essentials of the truth about the human being: but they need to be enlarged upon, so that they show us man and not just a skeleton. We could profit from examination of some of the elaborations by the philosophers of the basic definition of person: they will serve not only as charts of the structure of man in general but as portraits—metaphysical, but likenesses all the same—of those persons with whose education we are concerned.

Abbot Vonier, in his work on *The Personality of Christ*, explains human personality in terms of the appropriation of being and of responsibility. Any human person, he says, begins in childhood to call the self 'I' and to reckon that the 'I' possesses being so intimately and so exclusively that the acts of that being can belong to no other, and the 'I' must answer for them.[7] Maritain extends that idea of incommunicable responsibility into the twin ideas of integrity

[2] *Catholic Documents*, X, p. 3.
[3] B. Simon, *Les Chiffonniers d'Emmaus* (1954), p. 240.
[4] P. Coulet, *La Personne Humaine en Danger* (1949), pp. 208–210.
History and Human Relations (1951), p. 47.
[6] *Beyond Neutrality* (1955), pp. 12–13.
[7] A. Vonier, *The Personality of Christ* (1939), pp. 30–35.

and independence, recalling that the concept of wholeness and completeness is, in the thought of Thomas Aquinas, inseparable from that of person, and that the metaphysical tradition of the West defines the person in terms of freedom, and therefore of independence. Maritain also uses of personality the phrase " interiority to self," stressing the fact of the necessary self-possession and withdrawnness of the person[8]—what Allers calls his " unavoidable, ultimate loneliness"—which are inevitable in a being whose acts are his own and who must take responsibility for them.[9] The same idea is expressed by many others, both in and out of the Thomist tradition. It seems to be implied in the Kantian statement that man must always be treated as an end in himself, never as a means. Berdyaev insists eloquently on man's completeness in himself (which Maritain emphasizes, following St Thomas), and says that man is not constituted by being a part of some whole, ' whether social or cosmic.'[10]

The necessary isolated independence of man is expressed poetically by Matthew Arnold where he describes men as islands separated from one another by

The unplumb'd, salt, estranging sea.

Those sketches by the philosophers are sketches from life—from the persons towards whom we have the relationship of educators. They are in germ, and to some extent in growth, free and responsible beings, whose freedom is towards their own expansion, and who, by playing their part in life as responsible actors in the providential scheme, and responding fully to their inner impulse towards full existence, will, in Lemarié's phrase, produce themselves and give birth to themselves.[11] In Wordsworth's verse:

The Child is father of the Man.

[8] J. Maritain, *The Person and the Common Good* (1948), pp. 28, 40–41.

[9] R. Allers, *Psychology of Character* (1936), pp. 274–275.

[10] N. Berdyaev, *Cinq Méditations sur l'Existence* (1936).

[11] O. Lemarié, *Essai sur la Personne* (1936), pp. 26–28, 89; *cf.* J. Mouroux, *Sens Chrétien de l'Homme* (1953), pp. 108–109.

In the words of St Thomas: man is *causa sui*[12]—under the providence of God, his own maker.

Thomists old and new would accept the statement of the aim of education as the making of persons. The raw material of any art or craft should be worked upon according to its nature. Wood can be made into furniture or kindling, animals into food or clothing. Children are human beings, ends in themselves: all that can rightly be made of them is human beings in their perfection—a perfection, moreover, which is individual, as each person is unique and irreplaceable. Maritain quotes Pindar to the effect that our chief duty lies in becoming who we are.[13] That aim of making the self complete in its inward life, and in the relationships which belong to the human person with persons divine and created, should be the deciding aim in education. Other aims must be subordinated to that one, and must conform to it. So education for citizenship, for service, for industrial and commercial and political self-reliance, may have their place, but only if they contribute in the right proportion to the making of persons in the full sense, which includes uniqueness, freedom, responsibility, and immortality. The aim of education might be stated in the words of two of Malraux's characters: "To give to men a knowledge of the grandeur that is in them . . . and the possession of their own dignity."[14] All those *in statu pupillari* (and who is not, in some way, learning to live his own life?), but especially children, are collaborators in a work of self-realization. (That is one reason why Catholics will have their own schools: senior and junior collaborators must have the same background of philosophy and religion.) Education is not primarily the transmission of instruction or information but an introduction to a manner of life, and then companionship in living. That is why the family is the most important and the most effective co-operator with the child in his education.

12 *Summa contra Gentiles*, I. III, c. 112.
13 J. Maritain, *Education at the Crossroads* (1949), pp.
14 *La Voie Royale* and *La Condition Humaine*.

When education is thus accepted as the process of the development of persons towards individual perfection, there will be insistence in the planning of education on the personal. Education is the work of two persons, the person of the teacher and the person of the taught. Any tendency to the impersonal in education is regarded, on Thomist principles, with suspicion. Among the more suspect of the tendencies in modern education—not everywhere present, but certainly a danger—are these three: the growing importance of administrative considerations in education systems, the assertion of a false equality or parity, and the neglect of the humanities.

That there must be national systems of education, and that they must be administered, is admitted. But administration should subserve an educational system in which right principles prevail: and the personal relationships which are the ideal of education should not become less possible or less fruitful because administrative convenience and efficiency have been given priority over them, and have made schools far too large for the establishment of personal relationships. No doubt in the best of systems a Head would be responsible for administration: but he should be head of a family, not of a factory; and as head of a family he should know his children as persons. His staff also should be the senior members of a family. That they should help the Head with his reasonable administration is right, but they should not be general-purpose civil servants. The preservation of the person-to-person relationship in education is the more urgent as it is threatened in other ways as well. The value and the influence of teachers are mostly in their personality, both metaphysical and psychological. Their value is impaired and their influence diminished when their classes are too large or when their personality is obscured by techniques. All the aids to instruction can be valuable—books, mass lectures, and all the visual aids, from still photos to television; but they must be used in a proportion which allows the best co-operation of two intellectual activities, that of the teacher

and that of the pupil. St Thomas would approve of visual aids—he is continually giving examples for the visual imagination, and in an article of the *Summa Theologica*,[15] amusing and profound, he talks of vision as the most subtle of the senses: but he concludes that it is in speech that man most exercises his intellect, and most shows himself human. There is no sufficient substitute for the real personal relationship of good teaching.[16]

Thomism and Neo-Thomism are far from being egalitarian. On the contrary, they assert the uniqueness of the person, and the consequent impossibility of making a general parity of esteem, since there is no parity of value. They recognize an equality of all persons in the possession of being, in uniqueness, in self-possession, and in responsibility. But by definition no two uniques are alike. The selves possessed differ from one another: and responsibility is for more or less—for five talents or for one.

They would therefore deplore a system of education where equality is not reckoned as the basic being of the persons to be educated, but is found to be their condition after they have been through the mill. A convoy system of education in which the pace of the group is that of the slowest member; an assembly line of education where the determinant of what is learned and how it is learned is not the unique potentiality of the learner but the requirement of an impersonal board of examiners; a national system of education where the ideal product is a citizen—of the nation or of the world—who pays for his education by service between the time he leaves school and the time the nation buries him; a system of education made for an industrial civilization which concentrates on practical scientific talents and inevitably neglects humanism—all those the Neo-Thomist regrets. They are not fully in the service of the person, as education must be on the scholastic principles of personal value.

[15] I.Q.91 *art.* 3. *ad* 3. Utrum corpus hominis habuerit convenientem dispositionem.

[16] *Cf. Herders Bildungsbuch* (1953), p. 369, and J. Sellmair, *Bildung in der Zeitenwende* (1951), p. 295.

In the endless debate about humanism the Thomist takes the line that all knowledge is good but that in any person knowledge should be in proportion, and that knowledge of God and man in their metaphysical being must enter into any individual's knowledge if its proportions are to be preserved. In practice no specialization in learning is justified if it leaves out the learning of religion, and of language, the chief means of personal communication. Secondary modern schools would make a wonderful contribution to personal perfection if they would use their opportunities to give special facility in human communication—through drama, art in all its forms, and above all the mother-tongue. Humanism ought to be every pupil's achievement, as it is within every normal person's range.

In the actual work of education emphasis must be, according to the scholastic estimate of person, on self-possession. As Aquinas says, the human person is *sui juris* and has *dominium sui*. He has the liberty of a self-determining being. Those excellencies are present in the child, but in germ only. It belongs to education, not to form, and master, and dominate, but to put the person in the way of self-formation, self-mastery, and self-dominion.[17] It is possible, as the totalitarians and some educators know, to overcome the egoism of the child by subjecting him to an authoritarian egoism, that of State, or Teacher, or Leader. But the training which is true to the metaphysical reality of the person aims at the mastery of egoism by itself. Education has to form reason and conscience, which are personal possessions and which work from within. There must be discipline; but it must be a discipline that is gradually accepted as a personal need and fulfilment.

That is true especially of religion, which, if it is genuine, is a personal relationship between man and God. The method of sheer authority in the teaching of religion is insufficient and harmful. The learner is not a mere passivity or

[17] Semaines Sociales de France. *La Personne Humaine en Péril* (Clermont-Ferrand, 1937), p. 455.

receptivity. The autonomy of the human person defeats the purpose of authoritarianism in religion, because no one can have a real religious allegiance except by his own willing acceptance of it.[18] A " masterly inactivity in the director " (to use Mme Montessori's phrase) leaves space for the decision of the child—the primary agent, as Aquinas says, in the work of education.

The apparent conflict between authority and autonomy has worried educators since education began. Thomism solves the problem by direct application of the metaphysics of the person.

Both authority and autonomy come from God, and are elements in a providential plan for personal perfection. There cannot be essential opposition between them : and if they keep within appointed bounds they will be in fruitful alliance. They have the same cause and the same purpose.[19] Personal liberty is towards personal perfection : authority is towards the increase of personal being in those over whom it is exercised. In principle there is no conflict. In practice liberty is made to mean, in education and elsewhere, an absence of restraint and of law and order. It is supposed to justify the person in doing what he likes. Where that false notion of liberty prevails any exercise of authority is seen as an invasion of personal rights; and extremes of ' free expression ' and ' free discipline ' are admitted into educational schemes as though they corresponded to the reality of the human person.

But human liberty is towards the benefit of the being who possesses it : it is therefore towards human perfection. It is freedom to do, not what you like but what you ought : and it is within the limits of duty. It implies an ordered self-restraint.[20]

Education is the co-operation of authority with autonomy

[18] L. Laberthonnière, *Théorie de l'Éducation* (1935), pp. 73–75.
[19] Charmot, *Esquisse d'une Pédagogie Familiale* (1946), pp. 166–167.
[20] *Cf.* J. Maritain, *Education at the Crossroads*, pp. 33–35; Lemarié, *op. cit.*, pp. 113–114.

to produce personal perfection. The human being is born not free but free-able, not perfect but perfectible. Authority's task is to be the servant of a developing freedom. To stress that truth Allers recalls the origin of the word 'authority.' It is from *augēre*, 'to increase.' Authority, by its nature, exists not for its own sake but for the benefit of those over whom it is set.[21] It is an agent in the work of liberation.[22] Unlike totalitarian authority, which seeks to make itself indispensable and permanent, true authority in education seeks to make itself unnecessary. It makes children belong to themselves, submit to their own discipline, and use their true freedom—just as parents aid their children not only to grow, but to grow away from them. Authority is necessary and permanent—it is part of order, which is essential to human goodness. But it is such that submission to it is the means not of slavery but of freedom.[23]

Persona, says Thomas Aquinas, *est id quod est perfectissimum in tota natura.* It would be unrealistic to ignore in practice a value admitted in theory. Our right values are denied unless we live them. The Thomist requires us to make doctrine and behaviour conform in education by recognizing people as persons. A class of fifty is not a mass of youngsters but fifty uniquenesses, fifty vocations, fifty autonomies, each with rights and responsibilities, each with an immortal destiny, each *sui juris* and *causa sui.* To each we owe co-operation in the task of self-realization—self-making.[24] Anything less than that is dishonest. It is also destructive. Simone Weil remarks that it is futile to set out on the work of bringing up children, elevating them, unless we can elevate them in their own eyes. We must therefore so regard them that they see we are looking at beings of high value—and that kind of attention, she goes on, should be taught to children by teachers whose professed aim is to give vision of truth

[21] R. Allers, *op. cit.*, p. 58.
[22] J. Maritain, *op. cit.*, p. 39.
[23] Laberthonnière, *op. cit.*, pp. 45–48; Semaines Sociales, pp. 489–491.
[24] *Cf.* G. Marcel, *The Decline of Wisdom* (1954), pp. 17–18.

and beauty—of reality.[25] To look at people, especially with the eye of the mind, as though they were not wanted or undervalued, is to damage them, as the Abbé Pierre points out, and as Allers agrees, adding that it frustrates the will to community to the fulfilment of which every person has a right.[26] The teacher, following Neo-Thomist metaphysics, must look upon his collaborators—pupils, students—with esteem, and his esteem must be perceptible to them. That is an essential preliminary to full co-operation.[27] Education is a person-to-person relationship.

Anyone hearing that demand for attention to the reality of person, and thinking of a crowd of waiting pupils or students, might wonder what time would be left, when each one's person had been adequately esteemed, for the ordinary drudgery of educating them. But the esteem and regard which are required are not primarily a matter of smiles and courtesies (though those have always their place). They can be explained in what Gabriel Marcel says about *presence*, which is independent of spatial proximity. It is the "spiritual bond between two autonomies, each of which participates in the other."[28] It is being one's complete personal self towards another whose personal reality one has at heart. It is for the educator to make himself present to his pupil in that deepest of relationships, which includes a sense of the sacred and mysterious essence of being, and a self-sacrifice for its development to perfection.[29] With mind and heart directed in that realistic way to persons, the teacher becomes aware of the need of a knowledge of pupils adequate to the mystery of the person. Given the uniqueness of person, each pupil is a new subject for study: and each has a right to be studied

[25] S. Weil, *La Condition Ouvrière* (1951), p. 125; *cf.* the same author's *Attente de Dieu*, p. 122.

[26] Simon, *op. cit.*, p. 18; Allers, *op. cit.*, p. 164.

[27] H. Chevallier, S.J., "Vous chercherez le contact humain," *Pédagogie* (June 1954).

[28] R. Troisfontaines, S.J., *De l'Existence à l'Être* (1953), Vol. II, p. 21.

[29] *Cf.* J. Maritain, *Education at the Crossroads*, pp. 7–10, and Laberthonnière, *op. cit.*, pp. 105–106.

—and as a being whose 'mysterious identity' 'no techniques can reach.' Each pupil is a new world, coming once for all into a relationship which only right esteem and right knowledge can make personal, and therefore adequate to reality. In theory there can be general cases and typical individuals: but in practice there are only particular cases and individuals, each of whom is an original.[30] Concern for the person, any person, whatever the fable may say of the discovery of the individual by the Renaissance,[31] is an essential of Christianity, and therefore of Thomism in any form. Knowledge of one's pupils means, moreover, a continually modified assessment of oneself, so that on neither side of the relationship may reality fail. That is one reason why the person-to-person relationship of teaching is formative of personality in both terms. There is, however, a reason far deeper and more productive: it is that ultimately the bond in education between teacher and taught is a bond of love.

What has been said of the inwardness of person, of the unique mystery that each person is, and of the inviolable citadel of the spirit, goes necessarily with the truth that the human person has a natural and inevitable outwardness. There is an obvious outwardness to the reality of the external world without which physically and intellectually the human being cannot continue in existence. There is an outwardness also to the world of persons, without whom morally—that is to say, personally—the human person ceases to be a person.[32] In the language of psychology the perfection of person depends on the achievement of two root purposes: the will to power, which is for the attainment of personal worth, and the will to community, which is for self-dedication to others. Both are necessary for personal perfection.[33] The very word 'person' implies a relationship of love. Etymologically it means participation in a drama, not

[30] Lemarié, *op. cit.*, pp. 43–44.
[31] *Cf.* E. Gilson, *Héloïse et Abélard* (1953), p. 130.
[32] *Herders Bildungsbuch*, p. 415.
Allers, *op. cit.*, pp. 78–81.

the solitary possession of a deserted stage. Ontologically it means the devotion of a personal life to all persons. Just as the divine persons have their being in their mutual relations, so, analogically, human persons depend for their perfection of personality on their direction to others.[34] There is a close correspondence between the Christian assertion that charity is inter-personal communion, firstly in the very being of God in Three Persons and then in those who participate in the divine nature, and some of Marcel's explanations of the I-Thou relationship. The I fully realizes self only when it affirms the value of the Thou.[35] But to assert the value of the 'thou'-partner in education is to admit a reality towards whom the 'I' must be devoted to the point of self-sacrifice: and that means a bond of love.

Maritain disagrees with Pascal's assertion that we love not the person but his qualities. On the contrary, says Maritain, love is the giving of self to personal reality so that the reality may fully exist. It is directed, therefore, to what is most fully existent in the human person, that deep, substantial metaphysical centre of being, the personal essence.[36] As Troisfontaines says, love addresses itself always to what is ontological in others.[37] It is in that relationship of love that the solution will be found—individual always, never general—to the problem of co-operation between authority and autonomy. There also, and nowhere else, is found the meaning of love for the unlovable which may need to be exercised in the work of education.[38]

Love which is for value in being rather than for value in action is reasonable always and possible always: and that is the love for 'the most existing reality of the beloved being.' The existent and the lovable are, in Thomism, convertible

[34] P. Ranwez, S.J., in *Lumen Vitæ* (1954), No.
[35] Troisfontaines, *op. cit.*, II, pp. 41–53.
[36] *The Person and the Common Good*, p. 28.
[37] *Op. cit.* II, 36.
[38] *Cf.* J. J. Figueroa "Teaching and Education: The Teacher and the Pupil," *British Journal of Educational Studies*, IV, 1 (November 1955).

terms. What is disliked is not the existent but the absence of a reality which should be present: and in the work of education we are committed to the fostering of more possibility into a lovable actuality. Unlovableness, or unlikeableness, in a pupil is a challenge to the educator, because it means a lack of reality which the educator by profession—and, be it hoped, by vocation—is required to dispel by assisting the defective being to make a goodness fulfilling his person. It is only love which has that creative power. The educator must therefore direct himself to what is in germ merely, a possibility unrealized, a lack in being which has not yet been supplied, to make it. The fostering care which the child needs so that it may continue to produce its own ever-renewed life is the standard for pedagogical care of developing personal life. Love looks not only to the present good in the beloved but to the promise of future good—and that in any human relationship, of family life, of friendship, of education. Love is realistic: it sees what is; it sees also the possibility of increased reality in our personal being which must act under the law of progress and which must say Yes or No to the opportunities which each moment brings of further, deeper, existence; and it gives itself to another life so that the right answer may be made, so that opportunity may be taken and perfection of being be brought nearer. The work of education is a work of love, a creation of being, a making of immortality.

Aimer un être, c'est lui dire: Toi, tu ne mourras pas."[39]

To be engaged in education is to be devoted to persons, and, according to the nature of persons, to labour in time for an eternal achievement.

[39] Troisfontaines, *op. cit.*, II, p. 170.

III

Existentialism

by M. V C. JEFFREYS

The idea that the philosopher can construct a comprehensive system without being personally involved in it is an illusion. . The real can never be understood as purely rational. It requires an emotional and —even more important—a practical response. . . He who does the will, will know of the doctrine, and knowledge is not given for any lesser price.

Dr H. G. Wood, "Kierkegaard Studies," in *Birmingham Post* (November 19, 1954).

IT would be well if we could talk about existentialism without using that embarrassing term. It is embarrassing because it brackets thinkers as remote from one another in temper as pessimistic atheists like Martin Heidegger or Jean-Paul Sartre on the one hand, and theists like Karl Jaspers or Gabriel Marcel on the other. It is embarrassing because it seems to ascribe novelty to a movement of thought which is rooted at least as deep as St Augustine and Plato. Plato saw man's life as a rediscovery of things known—an Odyssey of the wandering spirit; for him there was no meaning in movement without a goal, nor in a goal without movement. Augustine, in his precept *Crede ut intellegas*, affirmed the paradox that, by acceptance, the mystery of life can become a key to understanding.

A further embarrassment to students of the modern existentialists is the obscurity of their exposition. One can read a good deal of existentialist literature without making

head or tail of it. That there is a good reason for this obscurity (namely, that established idiom affords a poor vehicle for what the existentialists are trying to say) does not make them any more immediately intelligible. We must recognize, too, a pathological element in existentialism, especially in the atheistic writers. This, however, does not destroy the essential truth of what they have to communicate. The history of human thought would be sadly impoverished without the inspired neurotics.

It is an embarrassment, too—or may we call it a blessing? —that existentialism is so ill-defined that we can make it what we will. We know the story of Nicolas Berdyaev, who, when asked what were his relations with existentialism, replied in surprise, "But I *am* existentialism!" And there is the remark attributed to Jean-Paul Sartre: "L'existentialisme—c'est qui me procure l'existence."

There is nothing fundamentally new in existentialism, nor in the world that gave rise to it. Yet there is, in modern Western history, a new emphasis, a new urgency, which has in fact provoked those philosophers, poets, and dramatists, from Kierkegaard onward, whom we have come to know as Existentialists.

The Tension in Man

If there is one thing that man has always known about himself it is that he is a contradictory creature, seeking what he cannot find, attempting what he cannot perform, free and yet bound, omnipotent and yet helpless.

> What a piece of work is a man! How noble in reason! How infinite in faculty! In form and moving, how express and admirable! In action, how like an angel! In apprehension, how like a God! The beauty of the world! The paragon of animals! And yet what is this quintessence of dust? Man delights not me. .[1]

Perhaps the most important effect of modern civilization

[1] *Hamlet*, Act II, Scene 2.

has been to aggravate (not, indeed, to create) the tension in man himself.

On the one hand, the individual has been made more aware of himself as such than in more primitive societies. New political and social responsibilities are thrust upon him, together with a certain amount of education. Meanwhile, society has become more fluid than it has ever been. We all know Sir Henry Maine's famous formula, "from status to contract," to express the contrast between the medieval and the modern world. Our world is one in which the place of an individual in the social scheme of things is not fixed. This fluidity, which implies not only opportunity but also insecurity, and which forces the individual to become aware of himself in a new way, is further increased by the much greater speed of social change.

On the other hand, the pressure of the social group on the individual has also increased. The politically organized group presses on the individual by taxing him heavily, and by demanding compliance with a multitude of regulations. The State invades every sphere of life, and the public administration of human existence tends to make life impersonal and uniform. The social group, in its informal sense, also presses more insistently upon the individual. In the U.S.A. scarcely anything remains private; almost the whole area of personal life is exposed to the public eye. Even the desire for privacy might conceivably die out. Public opinion has become virtually irresistible, armed as it is with weapons of unprecedented power. In a very short period of historical time we have seen the development from the bow-and-arrow era of gossip, through the gunpowder age of the newspaper, to the atomic age of the cinema, radio, and television.

The increased social tension of modern civilization is felt within the individual, and between individuals and between groups. Since it lays increased responsibility upon the individual, it is not remarkable if modern man seeks to escape his responsibilities.

We seek to escape the tension in one of two opposite directions: (i) by immersing ourselves in the social mass, or (ii) by withdrawing from our socal obligations.

There is no denying that, for many people, it is a relief to be lost in a crowd; they are disposed to welcome what Martin Buber has called "the slavery of collectives." (He speaks somewhere of "the pain of being a person.") The absorption of identity in mass solidarity is presumably the emotional appeal of the totalitarian state. At a low mental level the comfort of losing oneself in a crowd is akin to animal warmth. At a higher mental level the escape by absorption in the mass requires a theoretical justification—a ransom paid by reason. To our rescue comes a variety of modern ideological systems, from the philosophy of Hegel and Marx to the more recent development of sociology and social psychology, all of which can be construed, with greater or less justice, to assure us that we are the products of our social environment, and that we cannot help being what we are. Viewed in such a light, morality ceases to be a matter of personal responsibility and conveniently becomes a matter of relative social pressures.

We can also escape our responsibility as persons by withdrawing into ourselves and denying our social obligations. At a low mental level this attitude accepts rights as a matter of course and resents duties as an imposition: 'Why can't they leave us alone?' A more subtle reaction at a higher mental level is the intellectual's distrust of sentiment and, above all, of popular sentiment. Loyalty (whether religious or patriotic) needs to be reinforced by deep emotional drives. Intellectual education tends to make people scared of emotion and sentiment, and makes them detach themselves from the roots of group loyalty, through a fear of being swept off their precarious intellectual balance. They feel uncomfortable if swept into a wave of popular enthusiasm such as the Coronation aroused, and can make such a situation acceptable to themselves only by making light of it. The emotional shallowness of the sophisticated constitutes a

not unimportant educational problem. For it means that the most highly educated individuals may be cut off from participation in the emotional life of the people, and thereby unfitted to be leaders.

Both these escape-responses (absorption in the mass and denial of social obligation) are facilitated by shallowness of experience and of feeling. I have spoken of the emotional shallowness of the intellectual. There is also the emotional shallowness of the non-intellectual, whom nothing has ever deeply stirred below the level of conventional sentiment and trivial entertainment. Part of our job as educators is to inspire integrity of feeling.

If it is true that modern civilization has aggravated the tension in man—or, to put it differently, if the responsibility of being a person presents modern man with an increasingly insistent challenge together with an increasing temptation to escape it; if the fundamental purpose of education is to bring people face to face with their responsibilities as persons and enable them to cope with life at that level—then the relevance of existentialism to education is already apparent.

For, historically speaking, existentialism is the outcome of, and response to, this increased tension in man. If there is one word rather than another that strikes the keynote of existentialism it is the German *Angst* (French *angoisse*), which has no convenient English equivalent. The term originates in the writings of Kierkegaard, and among modern existentialists is used frequently by Heidegger. *Angst* is the dread felt deep in the spirit of man, conscious of his own freedom and the necessity of choice, and at the same time confronted by (or, as Heidegger says, "thrown into") the mystery and enormity of a universe which threatens to annihilate him. The disquietude at the root of existentialism is something more fundamental than any rational uncertainty or certainty; it goes deeper than all transient hopes and fears, disappointments and fulfilments, because it is an intimation of the very nature of the world itself. It may, as in Kierkegaard, express a protest against the tyranny of conventional

social values, or, as in Heidegger, a horror of an apparently meaningless and calamitous universe. In the present century, owing to the political and economic crises through which the world has passed and is passing, the emphasis on insecurity and apprehension has increased; the sense of *angoisse* grows more acute, especially in those countries which have suffered most upheaval.

The existentialists, in their various moods, accept the tension of human life—the *angoisse* implicit in a destiny that commands us to spend ourselves in an everlasting attempt to attain the unattainable. They refuse all the ways of escape, whether by losing our identity in the social mass, or by denying obligation and withdrawing from commitment.

Existentialism is, above all things, a defence of man's freedom and an affirmation of his responsibility. Existentialists do not shut their eyes, in the manner of a superficial, self-sufficient rationalism, to the inconvenient facts of sin, suffering, death—those "boundary situations" of which Karl Jaspers speaks. They affirm the ultimate and inescapable responsibility of the individual human being confronted by the world in which he lives. He cannot shed that responsibility, and no one can relieve him of it. It is in *choice* (not in contemplative thought merely) that man truly exists and is himself.[2]

Self-transcendence

The tension in man is not a merely historical product. It is inherent in the nature of man as such. It has been much aggravated, but not created, by modern civilization.

A distinctively human property is the power of man to think about his experience—to detach himself from it, making it the object of contemplation. Man can thus transcend space and time, since on the plane of thought he can move freely through past, present, and imagined future, and can

[2] Note Jaspers' distinction between "mere existence" and "significant existence."

relate events in ways other than their temporal or spatial connexion. He can stand apart, as a spectator, from his own point-to-point passage through space and time. He can in this sense transcend himself; in short, he can reason.

Without this power of self-transcendence, man would not be man. He would not have freedom, since, without recollection and anticipation, there could be no *choice*. And, without some kind of systematic interpretation of human life and destiny, choice could not be based on any consistent principles.

But, if this power of self-transcendence is the condition of the *glory* of being human, it is also the condition of the *agony* of being human. It is in fact the condition of the tension in man which has been under discussion—of all the mystery, paradox, and frustration of human life, which we have every reason to believe the other animals are spared.

Two Ways of Knowing

If the human power of self-transcendence arises from the power to think about our experience—to make ourselves and our experience the object of critical contemplation—it is not surprising that the tension in man, challenging and threatening his personal integrity, should reappear as a distinct problem in the field of thought.

There are two ways of knowing, which ought to be reciprocally related, but which under strain tend to split apart from one another.

An astronomer 'knows' how far it is to the nearest fixed star. An exiled Irishman 'knows' how far away he is from Tipperary or Eileen Mavourneen. The distance in the first case is mathematical; in the second case it is primarily emotional.

Again, we can 'know' a human being in what may be called *dossier* terms; we can measure his I.Q. and record his height, weight, colour of hair and eyes, and other particulars by which he could be identified. And we can 'know'

our best friend in a different and intimate way, though we probably are ignorant of his I.Q., or even eye-colour, and such other data as the police would require if he were missing. "I know George? Of course I know George! Weren't we both in old Stinker's house at Radborough? What's that? Height? Well, about my height, I should say. Colour of hair? Well, sort of brownish—or it used to be, anyway. Eyes? Well, d'you know, I haven't a clue! Queer how you don't notice those things if you just know a chap as a friend!"

We recognize these two kinds of knowing. One is the experience of a situation that comes from entering inwardly, empathetically, into it, yielding ourselves to it. In this way we 'know' a friend, or soak up the atmosphere of a place. We can call this kind of knowing 'subjective' or 'existential,' if those words help us. It has the warmth of personally involved experience, but for that very reason is in a sense incommunicable, at least in plain statement; though it is at least partially communicable in art, the essential function of which seems to be to communicate this kind of inward knowing. The other kind of knowing is detached, conceptual, dealing with abstractions. It is the apprehension of a situation that can be achieved by standing back from it, holding it as it were at arm's length, keeping ourselves aloof from involvement and being spectators only. It provides the knowledge to be found in my friend's police dossier, and is in general the scientist's way of knowing.

Knowing is an extension of that process of dynamic adjustment between organism and environment which is growth. Inward or existential knowing begins with an already existing relationship—an intimacy—with the object of knowing. But, since Descartes, philosophers have been in danger of forgetting the truth that, as A. N. Whitehead put it, "consciousness presupposes experience, and not experience consciousness." Kant, for example, even while trying to rescue the situation from the *reductio ad absurdum* of Hume, never escaped from the initial assumption that in

knowledge the mind begins with itself, and proceeds to apprehend the external world by construction and inference. For that reason it has been said that what Hume gave Kant as a problem Kant handed back unchanged as the solution.

In contrast with the Cartesian tradition, we find modern existential philosophers like Gabriel Marcel developing a metaphysic of ' being ' as well as a metaphysic of ' thinking.' For Marcel, I am concerned with ' being ' in so far as I am aware of the underlying reality that unites me with other beings whom I recognize as fellow-creatures, and at the same time aware of myself as a responsible, choosing agent.

A metaphysic of ' thinking,' as Descartes's system shows, is bound to be egocentric. For it assumes a thinking self, detached from a world which, as object, is set over against it. We escape from egocentricity (which, by isolating the self, makes true self-knowledge impossible) by *starting* from the Other. Experience is *communication.* Only in what Marcel calls ' the inter-subjective nexus' can the thing that is 'given' ' speak to me.' We thus reach the paradox that it is through subjectivity that we reach true objectivity of knowledge—which is perhaps another way of stating Plato's doctrine that all knowledge is rediscovery. It is by losing ourselves in shared experience that we find self-knowledge (the power to see ourselves from outside the closed system of our egocentricity) and, for that matter, all truth that is ' experience of ' and not merely ' information about.'

Both kinds of knowing (the external and conceptual, and the inward and existential) are valid and necessary. It is of the nature of the human mind to combine the two, each of which has its limitations. In conceptual knowing the categories used to get ' objective ' precision are such as to let the substance of the thing escape and leave us with an empty formula, like my friend's dossier. Height, weight, colour of eyes, and so on, may all be accurately recorded. But it is not George! To put it crudely, in detaching ourselves from primary experience, we find ourselves too far off to *feel* the object. Contrariwise, in existential knowing, we

are too close to the object to *see* it clearly. I *know* George, but I cannot give you the information that would enable the police to identify him.

On the other hand, without the detachment of conceptual knowing, we should never know that we know, nor be able to communicate our knowledge consciously and intentionally. We should remain in some primitive state of fused identification with the objects of experience. We should not be human. But, if we dwelt permanently in the arid realm of 'external' knowing, we should not be alive. We should never possess, or be possessed by, the meaning of anything; experience would evaporate into formulæ. Nor could we continually enrich the content of our experience. We must ever return to 'inward' knowing, but as 'twice-born' souls.

In primitive minds there is a natural balance between the two kinds of knowing, and the passage from one to the other is not conscious. The primitive mind is not, in fact, aware of two ways of knowing. It is at the level of awareness that the balance tends to be upset. Intellectual development, like all growth, is fraught with peril. One of the most unfortunate results of modern civilization, with its scientific preoccupations, is the priority of value ascribed to conceptual thinking, with the implication that conceptual knowledge is the only true knowledge. We are even invited to believe that our knowledge of man himself can be squeezed into positivist categories. Sociology and anthropology readily lend themselves to a view of man as a soulless shell—a hollow structure of attitudes shaped by environment and circumstance. There is no harm, and, indeed, much value, in the scientific study of human behaviour, provided we never forget that the meaning of human life cannot be contained in the categories of science. The function of scientific knowledge is to illuminate our continual re-entry into the realm of direct experience, the full meaning of which can find expression only in the categories of art and religion.

The domination of scientific categories and of conceptual thinking can easily blind us to the fact that some kinds

of truth have to be *lived into* and not only *thought into.* Their 'truth' in fact means more than: 'This proposition is correct.' It means: 'This experience is valid.' These truths concern such matters as integrity of conduct, or excellence of music or painting. Proof of this kind of truth cannot be limited to the discussion of propositions. That does not mean that there are no propositions to discuss, or that we should refuse to argue with those who disagree with us. It means that the issue is one which cannot be disposed of simply by talking about it. For example, imagine a deaf man trying to understand music. Such a man could grasp, and perhaps enjoy, the mathematics and architecture of the fugue. Possibly he could even compose in a fashion. But he could never *know* music, so long as he remained deaf. He might, however, become convinced that music was something worth knowing. And, if his ears could be unstopped, he could then know music in the way that had been impossible for him until then.

From Kierkegaard onward existentialists have insisted that the meaning of life can never be fully understood by exterior inspection. Existentialism, from this point of view, is a protest against the domination of conceptual thinking, which empties the concrete reality out of experience. Existentialism affirms the perpetual need for direct, involved experience.

> If I want to talk about my love or my liberty in the language of objective science—or, simply, if I want to talk about them at all—immediately the intimate core which makes up the value of my love or my freedom disappears, and there I am, exposed to scorn and to minimizing theories. I can speak *to* God in prayer or silent communion, but if I try to speak *of* Him, my statements denote no more than a quasi-external being who, at bottom, scarcely interests me at all. It is useless to accumulate attributes and perfections: the God of the philosophers and savants is not my God, the absolute Thou before whom alone I am I. The 'mystery' of man cannot be reduced to

'problems.' The deepest reality is one I cannot deduce. It is never object; therefore it is impossible to imagine a communicable science of it.[3]

It is important to observe that subjectivity should not mean introversion. Existentialists make a great mistake if they deny the value of conceptual thinking. That way lies a cult of the irrational and a denial of universal truth which is ultimately destructive of the very integrity of the self which it is the chief concern of existentialists to preserve. Their reaction against traditional metaphysics tends to lead the existentialists into a revulsion from reason. Whether they deny or accept the existence of God, they do so without bothering to give reasons. It is, I believe, a profound truth that, in the last resort, God is not established by 'reasons.' We do not so much prove God as find ourselves in His presence. He has found us before we can find Him. Nevertheless, it is part of our business as rational beings to subject our beliefs to all the possible tests of reason. St Augustine, with his *crede ut intellegas*, never made the mistake of throwing overboard the human intellect.

The protest of the existentialist against abstractions and mass values, and his insistence that reality is to be found only in particular situations, may snare him into isolation. He may, like Sartre, fall into the temptation of generalizing from individual experience, and offering his own despair as the necessary predicament of mankind. Or, like Heidegger, he may be so shut up in his isolation that he denies the possibility of universal truth. "No thinker can give more than the truth of his own existence [*Existenzialphilosophie*]." Either way, isolation means the negation of rationality, and reduces freedom to caprice. Thus we find the pessimistic, atheistic existentialists emphasizing such categories as *l'absurde, le néant, la nausée*. Sartre, looking despair in the face, says, "We do not do what we want, and yet we are responsible for what we are." The pessimistic branch of

[3] Roger Troisfontaines, *Existentialism and Christian Thought* (1946; translated 1949), pp. 7–8.

existentialist thought is bound to end in solipsism, with its denial of the Other, and extinction of all meaning, including that of the self.[4]

Thus the Count in Anouilh's *Ardèle* argues that love is the giving of oneself to one's own projected image, and is thus a form of self-worship, which cannot survive the other person's assertion of independent existence. That one's own life should, in these circumstances, cease to be worth while is not surprising.

An existentialism which does not hold on to objectivity as well as subjectivity is bound to end in nothingness. The gulf between the two branches of existentialism is a striking reminder of the truth that there is no tenable midway position between Love and Death. From this point of view the great value of Sartre's work is that it uncompromisingly demonstrates what must happen when man cuts himself off from the source of his being, including God and his fellow-men. As he puts it, "existentialism [meaning atheistic existentialism] is nothing else but an attempt to draw the full conclusions from a consistently atheistic position." He shows that, if God is abolished, the moral law is abolished with Him, and Man is left in the final abandonment of vain and meaningless freedom which he can do no better than exercise with hopeless courage. The contradiction in which the atheistic existentialists land themselves is well illustrated by the position of Albert Camus, whose 'absurd man,' longing for the unattainable and seeking a meaning and purpose that do not exist, is in the impossible situation of Sisyphus, the logic of which is suicide. Yet Camus will not surrender; for Sisyphus the struggle, though futile, must be its own reward. In 'revolt' he must indicate himself and transcend his fate. But the trouble is that there is a complete hiatus in the

[4] Sartre ends by seeking freedom in willing the inevitable. It may be observed that the decisive choice on which spiritual life or death depends has already been made before this final position is reached. By then freedom in any intelligible sense has been extinguished; death has been chosen. Sartre's attempt to save the final situation is vain, though heroic.

argument. Reason ends with the absurdity of man's situation and the logic of suicide. Beyond that there is no argument. For in raising his standard of revolt Camus rejects theology, which alone can make sense of the dilemma from which the whole speculation starts.

In this connexion Gabriel Marcel's[5] distinction between subjectivity and subjectivism is valuable and important, for the first can easily tip over into the second, and, when that happens, all is lost. " Inwardness is self-paralysing unless it understands its need for other individuals, a need not only to be filled but to fill."[6]

> Each one of us [writes Marcel] is in a position to recognize that his own essence is a *gift*—that it is not a *datum*; that he himself is a gift, and that he has no existence at all through himself. On the other hand, however, it is on the basis of that gift that freedom can grow or expand—that freedom which coincides with the trial in the course of which each man will have to make his own decision. This trial implies a decisive option. I can put my meaning to you by saying that the physical possibility of suicide . is nothing but the expression of another much more profound and more hidden possibility, the possibility of a spiritual denial of self or, what comes to the same thing, of an impious and demoniac affirmation of self which amounts to a radical rejection of being.[7]

We can withhold ourselves from the reality that surrounds us, by shutting ourselves in upon self, or by making self the centre of our universe. But, if we go out of ourselves in acceptance, ' we cannot fail to see that intersubjectivity is after all nothing but charity itself.'[8] If we can open our-

[5] It is only fair to note that Marcel does not call himself an existentialist.

[6] Ralph Harper: Significance of Existence and Recognition for Education," Chapter VII of *Modern Philosophies and Education* (ed. Nelson B. Henry). National Society for the Study of Education (1955), p. 216.

[7] Gabriel Marcel, *The Mystery of Being: Faith and Reality* (1955), p. 173.

[8] *Op. cit.*, p.

selves to the light of the invisible world, then—although in one sense there cannot be salvation in a world whose very structure makes it liable to death, where 'death is somehow at home'—a 'transformation takes place *here below*, for earthly life itself is at the same time transfigured.'[9]

Marcel's theme is that the essential meaning and value of life is to be found in communion between persons—that is to say, in love. Only in the fellowship of love can people be free to grow as persons, since it is only in love that a person can give himself without ulterior motive and, so to speak, be given back to himself, enriched. It is the law of love that we lose ourselves to find our true selves, and there is no other law of growth and freedom.

This is not the occasion to discuss at any length the bearing of belief or disbelief in God upon the philosophy of love. Yet it is impossible to ignore a question which so sharply divides the existentialists. They are at one in their pessimistic view of natural human possibility. For the atheistic existentialists there is no more to be said. Those who see beyond pessimism find their salvation in a divine transcendence. Thus for Jaspers it is when man comes up against an impasse, and is forced to recognize that he is not self-sufficient ("the check"), that he can in the moment of free choice open himself to the power of God.

To put the problem of human relationship in a homely way, we all know that the world would be transformed if we could love our fellow-men. But it is painfully obvious that we fail to do so. In this imperfect world the precept 'Love one another' remains at best an unattained ideal, and at worst an unwelcome and embarrassing obligation. But the situation is altered if we believe that we—my neighbour and I—are already held in the Love of God. We cannot but respond to that Love in proportion as it is a reality to us. This response can transmute moral duty into free and happy service. We can love one another 'in God.' We know ourselves to be brothers because sons of God.

[9] *Op. cit.*, p. 187.

I spoke earlier of the 'twice-born' state. If we are thinking of relations between persons, the difference between the 'once-born' and the 'twice-born' states can be expressed as the difference between community and communion. Community is here used to mean a natural, primitive social relationship, taken for granted. Communication, at an analytical level, makes individuals increasingly aware of the tensions of social life and brings them to an inevitable point of decision. They may seek to withdraw themselves from social commitment (individualism); they may regress to the level of primitive community (on the promotion of such regression the success of totalitarianism depends); or they may go forward into true fellowship, or communion.

Corresponding with this dialectic of community, communication, communion, we can recognize a dialectic on the intellectual plane which recalls us to the earlier discussion of the two ways of knowing. At the primitive level, the existential and conceptual modes of knowing have not been differentiated. The development of conceptual thinking places us in a dilemma. We can say that conceptual knowing is the only true knowledge, and thus cut ourselves off from the source and replenishment of our being. We can take fright and regress to the primitive unthinking state. Or we can be 'twice-born'—that is, return continually to the realm of direct, inward experience, but illuminated by conceptual analysis.

Clearly we need a balanced interrelation of the two ways of knowing. And certainly this is more difficult to achieve—as it is also more fruitful—at the level of sophisticated mental life than at the primitive level. The balance of the 'twice-born' state is a condition of rational and moral behaviour.

Without conceptual thinking there can be no intellectual awareness; and without existential experience there can be no dynamic for action. Moreover, the twice-born is rescued from the egocentricity in which conceptual detachment can leave an individual marooned. He is therefore

capable of enlightened commitment and true fellowship.[10]

Implications for Education

If the argument so far is sound the question: What has existentialism to do with education? is already answered. There are two aims, or values, in education with which existentialists, while claiming no monopoly of concern, are bound to be specially interested.

(*a*) *The Education of Personal Responsibility*

For the existentialist the overall purpose of education is to bring people to realize their responsibility as persons, and to equip themselves to fulfil that responsibility. This principle of personal responsibility lays upon the teacher an obligation to respect the autonomy and integrity of the pupil.

> A passionless teacher is a bad teacher. But there are passions that are better left out of the classroom, especially the passion to display one's self. Another is a passion for a system or idea or point of view that discourages reflection. Two normal passions remain: (*a*) a passion for the truth of any question that arises or ought to arise in the development of a subject-matter, the truth no matter how strictly one is forced to review one's previous judgments; and (*b*) a passion for the end of teaching, the autonomous functioning of the pupil's mind and the habitual exercise by him of a character that is free, charitable, and self-moving.[11]

Viewed in this light, it is the teacher's obligation to combat everything that disintegrates human personality, undermines the value set upon persons as such, or reduces human life to abstractions. He must vigilantly reckon with all those influences in modern society which numb the sense of responsibility or invite escape from responsibility, including those interpretations of human behaviour which sanction,

[10] This dialectic of detachment and re-commitment, whether we think of it at the level of thought only, or in terms of the whole personal life, recalls A. J. Toynbee's theme of withdrawal and return.

[11] Ralph Harper, *op. cit* p. 237.

or appear to sanction, the view that we cannot help being what we are.

Since responsibility concerns persons in relation with one another, the education of personal responsibility must involve practical experience of living in social groups of the right kind. The educative society is one which encourages neither a selfish individualism nor the absorption of identity in the mass, but the mutual respect of persons. Valuable work has been done in recent years by the late Kurt Lewin and others in the study of democratic groups and democratic leadership. The democratic group, in which both freedom and authority rest upon the respect of persons for one another, has been experimentally compared with the authoritarian group, and also with the anarchic group. These studies underline the necessity in education of the right sort of group membership. Indeed, we are coming to realize that learning is essentially a social process, and that the nature of the social units of education may well be even more important than techniques of instruction.[12]

Not only must personal responsibility be educated through the right kind of social relations; it must be exercised in the service of others. A healthy community needs a healthy morality of work. The whole social experiment which we know as the Welfare State will founder miserably unless we have a better sense of public obligation than inspires most of us at present. Writing of the morality of work, Mr M. L. Jacks says:

> In contemporary society there are four things lacking in this respect, and it is within the power and within the duty of schools to provide them. The first is a respect for good work: the second is a willingness for hard work: the third is efficiency: and the fourth is an ideal of service to be

[12] Compare the revolution in industrial psychology, which, twenty years ago, consisted mainly of time-and-motion study. Nowadays we realize that, even from the point of view of productivity, satisfactory social relations in the work-group and in the factory in general are no less important than technical skill.

rendered to society in and through a man's daily work well done.[13]

(b) The Education of Feeling

Truth, it has been suggested, must be lived into, not only thought into. To talk about experience is not the same as to experience. I spoke earlier of the intellectual mistrust of feeling, which distorts life,[14] and the shallowness of feeling, which impoverishes life. If our education is to be full, we must pay at least as much attention to the exercise of feeling as to the exercise of thinking.

> We have not educated men more than a little when we have made them more literate, more vocal and more technically skilled. The school has to nourish and educate feeling and intelligence and will, as well as to impart knowledge and techniques and to train minds, each according to its capacity to analyse and dissect. Education is concerned with producing attitudes, and this means not teaching in so many words the desirability of attitudes, but making a really personal contact and 'entry.' The inward life is a life of imagining and feeling, and upon its health and vigour the quality of our living and the quality of our convictions will depend. If any training of a sense of values, any growth of a deep sense of purpose, is to be possible, children must not lose their power to experience.[15]

It is worth pointing out that the 'entry' and 'inwardness' of which Professor Niblett writes in the passage I have just quoted are not forms of experience to be found in some parts of the curriculum and not in others. It is not a question of dividing the curriculum into subjects that have to be 'felt' and those that have to be 'thought.' The business of redressing the balance of the curriculum is not simply a matter of putting more art, music, and movement into the time-table. In *all* knowing there is a place for 'feeling' and

[13] M. L. Jacks, *The Education of Good Men*, p. 18.

[14] "Let us beware of the rationalism that sterilizes life instead of understanding it." Roger Troisfontaines, *op. cit.*, p. 4.

[15] W R. Niblett, *Education and the Modern Mind*, pp. 47, 115.

for 'thinking.' The enjoyment of art is greater if it is intelligently critical. And there is room for the emotions in science and mathematics. The true mathematician can speak of 'beautiful' mathematics. And a recent President of the British Association spoke of the place of wonder in a proper attitude towards scientific inquiry. Not only is wonder a spur to thought; it is also a governor of thought, promoting a spirit of reverence rather than of exploitation.

Existentialists must be concerned with the education of the whole human being as such. Education must be total, not partial. Any partial education must be recognized as having its place in a programme of total education. It is the person who is being educated, not subjects that are being taught. The purpose of education is not only to produce historians or philosophers, any more than to produce only electrical engineers or dentists, though it should produce all these.

Conclusion

There is a more important issue in the modern world than the fate of our civilization. It is, as Berdyaev has insisted, the fate of the human spirit. What is at stake is the integrity of man himself.

The integrity of man depends on the courage with which he can accept his ultimate responsibility as a person, face to face with the hazards of his destiny, with its mysteries of sin and death, freedom and love, and the endless necessity for the attainment of the unattainable.

In this picture of the essential nature of man all existentialists agree, whether they are optimistic or pessimistic, theistic or atheistic. Even those existentialists who are not religious are concerned with the problems of religion—man's homelessness, and his inability of his own resources to resolve his deepest anxieties. They do not deny or ignore these problems. Every man must die. Can he be called educated if he has not faced, at full depth, the question what this means to him?

The purpose of education must be to exalt the image of the free, responsible person, and to fortify each individual in the struggle to redeem and establish the true dignity of man. In a world where mass feeling invites the absorption of personal identity, and technical organization invites the abdication of humanity, nothing can be tolerated in education which offers escape from what the Grand Inquisitor in Dostoievsky's legend called "the terrible gift of freedom." If man is not to unman himself he can play for no lower stakes, however the dice may be loaded. Whether it is our fate to seek for ever what we can never find, or whether there is a destiny for the human spirit beyond tragedy; whether we can discover nothing beneath our feet but the bottomless pit, or whether we believe the abyss, accepted, is none other than the lap of God—that is a question which may find no clear answer within the compass of this world. But, if it is worth striving for the impossible—if that is a sane and not a lunatic attitude—is it not because, on some plane of transmutation, the impossible is already accomplished?

IV

Pragmatism and the 'New Education'

by A. V JUDGES

TO-DAY we take leave of first principles and abandon the conception of absolute values upheld by the schools of Platonism.

Pragmatism is not a universal system; and some would see in it no more than a method of approach or a frame of mind. In a sense it is a posture of the spirit. It can also be regarded more strictly as a philosophical discipline with its own proprietary brand of logic.

In the more general sense—as a way of looking at things—every one is familiar with pragmatism in the observations of men of science, and of men of affairs too. Indeed, much of our ordinary thinking can be so labelled, such as our endeavours to use tentative working conclusions when trying to bring novel ideas and new techniques under control. Watch the experimental procedure of young children with their spades and pails as the tide rises over the sand, trying out this purpose and that with their trenches, improving their engineering skill as they advance their humble knowledge of hydraulics. Or listen to the President of the British Association talking on the wireless: "The improvement of knowledge by successive approximations" is fundamental to the processes of science and discovery, he told us last August. Or read what is said on cosmological field-theory by Mr Bonner, the Liverpool mathematician, in the last number of *Science News* (XXXVII, 23): "The history of

science suggests that no theory of applied mathematics or physics is likely to be permanently 'true.'"

Or again, Paul, writing to members of the Church in Salonika. "Prove all things," he adjures them, "hold fast that which is good." Proof, however, is not everything, and, writing to his friends in Corinth, Paul supplies his own corrective: "We walk by faith, not by sight." Still, even here, if faith (πίστις) means all that I think it means, it is charged to saturation with the sense of practical consequences.

Among philosophers of the modern age, Francis Bacon has been claimed as a forerunner because he refers constantly to the practical footing of knowledge; because he believes in inductive inquiry, and scorns the blind rules (or "idols," as he terms them) so readily accepted by the schoolmasterly temperament; also because he is an anti-intellectualist. When David Hume shows that conscious reason and logic cannot *prove* what we all take for granted—shows it, indeed, with shattering effect in modern thought—and when, then, being neither a nihilist nor a defeatist, he goes on to remark robustly that we can none the less get superb returns out of observation and out of generalizations from experiment, he is speaking like a pragmatist; though he would have thought it ill-mannered of you to address him as one. Later another Scot, Alexander Bain, whose name is known to all students of psychology, defined belief, with Aberdonian shrewdness, as "that upon which a man is prepared to act." You will find the same spirit exemplified in a more irrational mood in Bain's contemporary Nietzsche. Consciousness, says Nietzsche, extends as far as it is useful: it is an instrument of power over things, a method of conquest. Thirty years later still Bergson is saying, in his *Évolution Créatrice,* "Originally we think only in order to act: our intellect has been cast in the mould of action." Leave out the word "originally," with which Bergson was meticulously careful to preface his statement, and his thought would fit into place in any text-book chapter on pragmatic philosophy.

And so already, without consulting those who launched the modern doctrines, it may be that we have got a fair impression of the pragmatist's general attitude.[1] We learn from experience, and pin our faith to beliefs and actions that promise to lead to sensible results. It may be that what acquires 'meaning' in this way lacks the crisp edge of finality. We commit ourselves to it none the less because it is being tested and mastered in action, and, as far as it goes, it does not seem to contradict itself. Philosophy, then, is what man is doing while he studies the general significance of all that experience shows to have meaning, and while he watches himself at work performing this interesting exercise.

You might venture to point out that this kind of philosophizing is not going to set the Thames on fire. You might say that the meanings to be discovered in the actions of the human organism testing the resources of its native habitat hardly measure up to the vast scope of what philosophy has been popularly supposed to be. And the reply of the pragmatist would be that in the nature of things philosophy can go no farther with any expectation of profit. It would be pointed out that your energies are misdirected if you worry about cosmic purposes, or divine truths, or lie awake in the night perplexed by the intellectual difficulties and terrors of limitless time and ever-extending space. This is the kind of thing clever little boys and girls do—if they are badly brought up. What matters is how effectively we develop our powers for the solution of problems that *are* answerable within the medium in which practical planning occurs. All thinking is the mind adjusting itself to situations; and, of course, the better thinker is the quicker and more resolute adjuster among people and things. It is no accident that the expressions 'well-' and 'ill-adjusted' appear with monotonous frequency in progressive-school reports. Beside

[1] That the American school of pragmatists and their spokesman " Prof. James " had little that was original to say is argued vigorously, though somewhat perversely, in a sharp and sarcastic note written by F. H. Bradley in 1908 and published in chapter iv of *Essays on Truth and Reality* (1914).

the easy-chair in which reclines the philosopher, reflecting somewhat at large on what constitutes meaningful thought, sits the educationist, in a chair perhaps rather less comfortably sprung, actually pondering the same sort of things, and their application to the personal development of you and me and our children as learners. He knows that we ought to be enlarging the area of intelligent and co-operative behaviour, in order that we may work constructively on our environment. Advised by his friend the philosopher, he shows us how experience may most fruitfully be extended. It is hard to say where the function of this expert shades off into the function of the philosopher. "The most penetrating definition of philosophy," we are assured by the principal exponent of latter-day pragmatism, is that "it is the theory of education in its most general phases." [2]

Pragmatism is an unattractive word. It has earned the dislike even of those that professed it. Dewey, for reasons of his own, repudiated it. Functionalism has been held by some to be a better word, and this is because of their eagerness to dismiss the notion of mind, or mentality, from consideration as a self-subsisting thing. They dismiss mind as an autonomous entity, which can be separated from action, and analysed and taken to pieces. Rather, they say, mind is a dynamic process, which happens, or functions, within an organism called man when he is intent upon constructive actions upon the objects around him—that is, when such objects present problems which demand reflection. Other people have preferred the word instrumentalism, which seems to underline the importance of considering the thinker as a manipulator, not a beholder. He is *engaged*, they say, in his action. Ideas are tools. Thought enlarges its scope and usefulness by testing itself on practical issues. In other words, we observe the organism devising bits of mental apparatus (which can be viewed as jigs and templates and implements) to extend its range. To-day the name 'experimentalism' also has a certain vogue; and here again those

[2] J. Dewey, *Democracy and Education* (1916), p. 386.

who use the term wish to stress the *practical* significance of thought, and particularly the belief that thoughtful action—action which is neither wild and impulsive nor bound by habit—is in its nature always a kind of testing of provisional conclusions, or (if you like) hunches, or (if you like) hypotheses. It is natural for us, it is said, at first to think out each stage of our mental progress into wider experience by trial and error of a rather random kind. This is the mental level of the play-pen. We begin to mature, and we improve by experiment of a more and more thoughtful nature, as we approach the academic groves, absorbing new experience into our habit structures, and doing it the hard way, which is the right way.

It must be acknowledged that these conceptions of knowledge as begotten in action, and of wisdom as the child of hard-fought experience, are justified in large measure by introspection, and by the observation of our pupils and friends, all of whom live in a world which is constantly offering them problems. No one could dispute the importance of this view as a helpful approach to the school-room; though, as I hope to show, it may give us a mind in blinkers. There can be no doubt at all that American teaching methods have benefited greatly by the way in which pedagogical discussion during the last half-century has been imbued with this novel and invigorating description of the human mind. This way of treating the growth of personality as the product of action and discovery has had a special appeal to a virile community only a generation or two removed from the watchful, trigger-happy days of the frontiersman. The American philosophic genius has shown its best form where it has been occupied with the interconnexions between the conceptualizing imagination and the business of life: but always, I think, with a warmer concern for the latter. You may perhaps agree that in the advancement of scientific thought this New World genius has shown its resourcefulness rather in seeing the practical bearing of new ideas than in quietly pursuing the long-range interests

of fundamental research. For fundamental research in any field, if that means the neglect of practical concerns and consequences, the pragmatical thinker has very little time to spare. Speculative thinking for him is far too much absorbed in the conundrums of the past and beguiled by outdated aristocratic values. I quote from a Fourth of July address (1850) by a Missouri politician a hundred years before Harry Truman.

> With the Past we have literally nothing to do, save to dream of it. Its lessons are lost and its tongue is silent. We are ourselves at the head and front of all political experience—precedents have lost their virtue and all their authority is gone. Experience . can profit *us* only to guard from antiquated delusions.[3]

Thus B. Gratz Brown, at the head and front of 'experience,' denied that it had depth and maturity. 'Nature,' the well-known educational writer Professor Boyd H. Bode has claimed more recently, 'has proved to be a less formidable enemy than the absolutes which have kept [the common man] in bondage from the time of Plato down to our present dictatorships.'[4] The pragmatist claims with eloquent regret that in many schools and universities pupils are induced to learn too many dead facts and theories; and he begs that teachers should introduce them, not to the congealed wisdom of our fathers, but to 'problems' suitable for personal or group solution.

This, of course, is all very well. One finds oneself partly convinced; and, convinced thus far, one feels impoverished and distressed. What wasted hours one has spent in the idle collection of the butterflies of dead knowledge! What purpose, one is persuaded to ask, can possibly be assigned to all these unco-ordinated scraps of privily acquired information—these names and careers of Chinese generals and Frankish mayors-of-the-palace and Slovak footballers; or the

[3] I am greatly indebted for this striking quotation to Mr Frank Thistlethwaite, who uses it in *The Great Experiment* (1955), p. 108.

[4] Boyd H. Bode, *Progressive Education at the Crossroads* (1938), p. 25.

sequences of outmoded mathematical operations painfully mastered under durance and half forgotten; to say nothing of all those agreeable but quite useless day-dreams; to say nothing of ideas imposed on one's youthful mind by authoritarian schoolmasters and persuasive curates, concerning God and human destiny; to say nothing, either, of those visions of the twilight landscapes of the symbolic imagination into which we have mysteriously peered in the company of Freud and Jung? All this useless stuff, all these half-animated ideas, acquired by dubious processes, flopping into and out of the stream of consciousness like blind and ill-conditioned bats. These the wholesome and muscular pragmatist deprecates, but cannot explain away; cannot even explain at all by any theory of a mind sharpened into sensitivity by practical problems.

Not all self-confessed pragmatists have expressed distaste when admitted to these discreditable lumber-rooms. It is, regrettably, the educationists who have tended to take this line of repudiation, especially those coming after William James; although it was not his responsibility. For him *every* psychological manifestation was of absorbing interest. He is one of the four philosophers whose part in the development calls for special mention. The four men are: Charles Peirce, William James, George Herbert Mead, and John Dewey. Peirce began to teach in the 1860's; Dewey died in 1952. Each of these four had a daring, original, and masterful mind. They all came from the north-eastern seaboard states of America, and took up university careers; all developing manifold interests in psychology, scientific methodology and sociology, as well as in philosophy. The focus of the new development of thought which they fostered was within the intellectual quadrilateral of Harvard, Ann Arbor, Chicago, and Columbia; and, I suppose, if one had to pick out one of these universities as pre-eminently the spiritual home of the new doctrine, the choice would be the University of Chicago, which incidentally had the distinction of providing a location for Dewey's first experimental school,

in the eighteen-nineties, called the Laboratory School. Out of this experience of school management eventually came Dewey's most widely studied book, *Democracy and Education*; and it was his quarrel with the Chicago president over the administration of the school that led Dewey to seek his next appointment at Columbia University, and thus to abandon the centre in which his friend Mead was helping to build up the most famous school of sociology in the world.

I must start now with some consideration of Peirce, whom no one could have called an academic success. This man had an odd, unorthodox personality. His conduct disgusted college presidents. He was hardly a considerable figure in his lifetime; and he finished his career virtually a social outcast, a minority-minded malcontent. We hear of his living in a garret to which the only means of access was a rope-ladder. This would be let down to those of his acquaintance who still remained his friends. It was a protection against his creditors. Now we are all his debtors. Since his death Peirce has come to be recognized as one of the seminal minds of modern philosophical thought, for much that is alive to-day in logical positivism and neo-realism began with Peirce's provocative notions. He was the inventor of pragmatism, and he adopted the word, only later to repent it. When pragmatism became an intellectual movement it set off under William James's tutelage in directions of which Peirce, the scientific thinker and objective logician, frankly disapproved. Then the word began to be used in the literary journals. "It gets abused," said Peirce, "in the merciless way that words have to expect when they fall into literary clutches." He "feels that it is time to kiss his child good-bye and relinquish it to its higher destiny," and decides to adopt for his own beliefs the word "pragmaticism," which (he rather sourly remarks) "is ugly enough to be safe from kidnappers."[5] In this he was perfectly right.

[5] *The Philosophy of Peirce; Selected Writings* (ed. J. Buchler) (1940), pp. 244–245.

What does pragmatism owe to Peirce? In the first place, I think, the impulse to shock us. The son of a famous mathematician, and himself in the leading rank of experimental scientists, he recommended the empirical method of science as one which would fit all problems of life and thought. Form hypotheses. Test them. Encourage doubt. Verify all conjectures. Trust only the result of experiment. Ah, you would say, a philosophical determinist, no doubt. One of these mechanists. But you would be wrong. Looking at the world through his instruments, Peirce declared: What issues from my experiments does not suggest inevitability. What strikes me about the so-called laws of nature is that they are far too clear-cut. Yes, to be sure, they are approximately correct. But scientific laws are not absolute. We do violence to nature when we try to wrench it apart. The whole of reality, including our part in it, is indestructible in its continuity: it cannot properly be broken down into independent discrete parts. Indeed relationships within this continuum seem more important to me, as an inquirer, than the bits, the things we abstract from reality.

To all those who valued orderly classical precision above the statistical approximations of humble observation, Peirce must have seemed a terrible heretic. He has been called a medieval realist, a Scotist, scorning the idea of a universe built up of separate objects, stoutly refusing to deny deep significance to the common properties of things, insisting on giving reality to their relations. And so, in this most peculiar fashion, he introduced the fundamental pragmatist notion of the universal continuum, which requires an attitude of relativity to all statements about the movement of objects and the movement of thought. There are no fixed co-ordinates in the physical universe. It is, so to speak, a flux, in which chance has a rôle to play. Later pragmatists have rather played down Peirce's introduction of a large element of chance; but in any case the characteristic of a flux is that it does not stay still. Standard values have been banished. Plastic values have taken their place. The human

mind is a product of change. In a fundamental sense the world of living and dead things, and the thinking which goes on in it, are all of a piece. To say that different parts of our experience belong to different orders of reality is plain nonsense. Your bodily functioning and what you are pleased to call your mind are a joint manifestation within the same order of events.

People under the influence of pragmatism have always been preoccupied with thought and its nature. Thought and knowledge, as Peirce kept on insisting in his spirited way, emerge from inquiry; knowledge improves as inquiry is pressed. The possibility of inquiry is, indeed, for Peirce the touchstone of meaning. He launched among the academic philosophers the great heresy that the meaning of any statement is confined to its possible causes and effects.[6] This is a short way of saying what requires a great deal of rather tiresome elucidation. Dewey later went on to say in more understandable language that the meaning of an idea always contained a plan of action or operation (even if it is only an imagined operation). This insistence on the forward-looking character of all real thinking has got the pragmatists into all sorts of difficulties with their critics.[7] Anyhow, with his logical doctrine of meaning Peirce had fairly let his cat loose among the pigeons; and they have remained airborne ever since.

Now, assuming that I have provided a fair summary so far, it will have become evident to you that, scientific in outlook and method as pragmatism may be, it is obviously not deterministic. The consequences of this in educational thinking are immense. Within a determinist philosophy

[6] A good concise summary is provided by F. P. Ramsey, the Cambridge political economist: "The essence of pragmatism I take to be this, that the meaning of a sentence is to be defined by reference to the actions to which asserting it would lead, or, more vaguely still, by its possible causes and effects."

[7] It is impossible to say how deflating this restriction of meaning can be to persons like the present writer who are students of history. A devastating examination of the implications of this line of thought is made by B. Blanshard in *The Nature of Thought* (1939), I, pp. 359 ff.

ethical conduct cannot consistently be formulated at all, as I think Mrs Knight's recent valiant and moving attempts to prove otherwise to B.B.C. listeners have fairly clearly shown. But if man's conscious operations can to some degree control the course of events—and according to pragmatist teaching this is happening all the time—why, then, ethical considerations become possible—nay, necessary. Yet, though necessary, they must be relative to time and place, for nothing remains static, and organisms and societies continually change. It is common observation that Dewey's thought is ridden by moral considerations, as is that of his admirers, like Kilpatrick.

Another thing which has also struck you, perhaps, is that Peirce's scientific vision differs from the outlook of the Newtonian physicist, with its ice-cold simplicity and its handful of mathematical equations. We have here something much more like a biologist's universe, full of the possibilities of mutation, and charged with an endless capacity to change and evolve. This evolutionary standpoint is, I believe, an important aspect of pragmatic thought, not always clearly perceived. Darwin was one of the true spiritual parents of the movement. Change and evolution declare themselves, yes, and something which may be called progress. "The scientific mind," Mead has said, in one of his revealing phrases, "is the evolutionary process grown self-conscious." [8] Science is the mind of progress on its way; though we are forbidden to ask, progress towards *what* form of perfection? Progress is just change involving improvement.

Admittedly the conception of progress here is somewhat imprecise. But at any rate we are far away from mechanism. It is this rather ostentatious avoidance of anything static and established which puts difficulties in the way of all attempts to furnish a set of blueprints for good schooling, since the pragmatist cannot foresee the route progress will take in the development of the society the schools will have

[8] G. H. Mead, *Movements of Thought in the Nineteenth Century* (1936), p. 364.

to serve.[9] School and society are for him cognate developments. All the pragmatist can truly claim is that he can recognize good schooling here and now by its methods and the way it seems to be serving the progress of society.

Peirce's interest in children, if he had any, has left no mark, but through James and other contemporaries his influence on educational thinking has been very great. And what can we say of James himself? I regard James as one of the greatest names in the literature of the teacher's craft. Standing alone, his *Principles* or his *Talks to Teachers* would each have been a landmark. Of the value of his personal contribution to pragmatic philosophy I am more sceptical.[10] Certainly what he did was to popularize Peirce, almost to vulgarize him, until pragmatism became part of the idler small talk of the intellectual world. Whether

[9] Without some principle of valuation, progress is admittedly a useless notion. Pragmatists are not alone in rejecting the aid of heaven-born universals in their quest, or in attaching value to the character of desirable situations. Their task is to show what quality is common to *all* such situations. Mead seems to equate the desirable with the kind of action that attains the harmonization of impulses. And this conflation of uneasily linked conative elements is by no means a private affair. He sees (and I think Dewey sees) the growth and enrichment of what we call the personal life in the progressive seizure and assimilation of other people's perspectives. These are adopted in a generic form, and in this way they give birth to a sort of imperative common to the group. All evaluation takes on the character of social judgment. Thus, in the mature personality embodied social impulses seek out social values. Here we have not escaped from rational processes (which are an essential means to goal-attainment); but the moral philosopher's egocentric predicament has vanished, as also have some of the fantastic implications of the utilitarian's pleasure-calculus. The school with a good moral tone is one in which contradictory impulses are not found perpetually at war. Its life is infused by group values. Its members contrive to achieve an approximation to the harmony of which Mead speaks. We may speak of the *ethos* of such a community, but not of a group-mind.

[10] James's name was so closely identified with the popular idea of pragmatism that the doctrine came more and more to be criticized, especially in this country, in the form which it seemed to assume in his writings. This did no good to his reputation as a philosopher. Miguel de Unamuno roundly described the treatment of pragmatism as "the weakest in all the work" of James. (*The Tragic Sense of Life*, 1921, p. 81.)

James fully understood Peirce's position in the logic of meaning has been questioned. The disservice James unwittingly did to Peirce was to try to apply the pragmatic method to problems that were inaccessible to scientific cross-examination. Thus light-heartedly he essayed to discover the pragmatic significance of the change of *substance* which is believed to occur in the sacred elements of the Eucharist.[11] There was no end to James's intellectual ingenuity. He observed that he had faith in some things he could not prove; and faith, because important in his own life, acquired a quasi-pragmatic value. He put about a notion that, if holding to an idea and following it through led to satisfactory results, then that was proof of the truth of the idea.[12] This was James's pragmatism, or part of it. It would appear to mean that any idea that seemingly led to satisfactory results, however erroneous it might appear to the eye of common sense, must acquire the character of truth. Such results, said James, in a vivid but unfortunate description, were the idea's " cash value." I need hardly say that, if pragmatism really urged that truth or meaning lies in what delivers the goods, it would have been laughed out of court long ago.

Thus James's philosophical part in the movement was ambiguous. I believe his real contribution to the new mode of thinking rested on what emerged from his physiological interests. He began his professional life as a doctor, with a bent towards neurology. His reading of biological evolution led him to believe that human thought, like any bodily organ, was the product of natural growth and adaptation over the ages. Thought had been evolved by the needs of action; by bodily adjustment. His ingenious theory of emotion as part of the body's preparation for action is one example, and a very brilliant one, of this line of thought—although it was later discredited. A great deal of what we

[11] W James, *Pragmatism* (1907), pp. 87–89.
[12] W Savery, " The Significance of Dewey's Philosophy, in *The Philosophy of John Dewey*, ed. by P. A. Schilpp (1939), pp. 493–494.

call subjective consciousness belongs, James suggested, to the objective field. Nature must be regarded as neither strictly physical nor strictly psychical; neither word really applied to the human mind. And so he tried to persuade us that consciousness was far from being some aboriginal stuff. Knowing must be ranked as just one function of the active behaviour of the organism, a biological event within Peirce's continuum of nature and contained by its forces. Thus the stream of consciousness, for the description of which James the psychologist is justly famous, is a river which is open to receive any natural event from without, if the channels are open; and everything that James had to say in this connexion reinforces the pragmatist's insistence on the oneness of ourselves and our environment. The drive towards monism was not, however, enough to keep James happy. His trouble was a temperament too rich and impressionable for the tasks he set himself. Some new appreciation of reality was always breaking in and stealing a march on the theories already enunciated. As we know, his belief in religious experience was real and intense. His pragmatic monism was very apt to lose its tone and independence under the blandishments of the supernatural.

And so it is that James became responsible for a sort of bifurcation in the current of pragmatism. He created what I would call the pragmatism of faith, which can be used against agnostics; whereas Dewey, the inheritor, has been loyal to the pragmatism of practical experiment, which can be used against rationalists, and has influenced educationists far more than James's version.[13]

We may be uncertain whether to call James's pragmatism a hobby or a dedication. At least, he performed one very important service—that is, in directing fresh attention to the most perplexing of all the questions with which philosophy tantalizes the educationist: the nature of the self; the *persona*; that containing stream of being which constitutes

[13] W. E. Hocking, *Types of Philosophy* (revised edition, 1939), pp. 141 ff.

the conscious individual, and is always the same, and never for two moments the same. James must have thought a great deal about this mystery of the basic personality and its awareness of its identity. He tried to find an explanation in certain affective experiences, and, whether or not he found a good explanation, he certainly produced an extraordinarily readable account of the hierarchy of selves competing in a man or woman for the post, as it were, of actor-manager, and of the great division between the 'I,' the knower and thinker, and the 'me,' the self as known. How such selves could exist and be recognized was a question pragmatism still had to face.

It faced it in a fashion, though not with results which have commanded wide approval, in the efforts of John Dewey's early colleague and house-mate and close friend, George Mead. Mead's thinking came forth not in publications, but in his lectures and the work of his students and colleagues. Dewey was a generous man; but he was not given to making footnote acknowledgments, and we do not know in what proportion the collaboration of these two minds in their country walks produced unanimity of view. I should say it was under Mead's influence that Dewey introduced into pragmatic thinking the features which linked it up with notions about progressive education. Of course, Dewey was not, as some think, the pioneer of progressive methods in modern American education, though he might be called their mainspring. Most of them readily find justification, where they need it, in other philosophies. As far as the Siamese twins 'interest' and 'activity' are concerned, the case was argued with closer observation by Richard and Maria Edgeworth a century and a half ago, and with deeper spiritual conviction by Friedrich Froebel a generation after them.

Yet Mead and Dewey forced a change of emphasis upon educational thinking. They demonstrated the absurdity of trying to abstract the individual pupil from the larger reality of the group. Mead started off towards his most far-reaching

conclusions while asking the question how it is that an individual 'I' can get outside its 'me' and treat it as an object for scrutiny. From the train of inquiry thus begun we arrive in due course at what looks like an extension of Peirce's principle of continuity—namely, the realization by pragmatic thinking from now on that the notion of continuity applies with special force to the mutual interpenetration of the life of the social group and the personality of the individual. Mead's insistence on the generation of the self in social interchange further promoted Dewey's discovery that all meaningful actions, all those actions which education should encourage, are bits of social behaviour; and that only in a democratic setting, with a multiplicity of 'shared interests,' can the prime social instrument—the school—rear autonomous individuals. Autonomous individuals, we remark. Not socially conditioned robots.

Let us see how Mead proceeds. As I said, he was attacking the problem of the growth of selfhood, or what might be called the natural history of the psyche. How does the individual bring his own personality into the field of his observed experience? He accomplishes this, Mead discovers (by a most interesting series of insights), because he contrives to see himself as others see him. This feat, common as it is, requires some degree of maturity in the child, who, indeed, begins his personality growth unable to distinguish even his own body from its environment.

We must not, however, imagine a series of violent mental contortions. Mead says the 'I' begins to externalize itself and to look inward by learning to assume in turn the points of view, or rôles, of the people around him. Thus he hears himself talking to others and, in the process of doing so, goes some way towards putting himself in their place, as I am trying to put myself in your place in speaking to you now. He has to imagine conditions at the receiving end of his own messages in order to be able to code them effectively. To make an impression on another he must consider a personal outlook other than his own. Thus in his attempts at

communication the young child moves from gestures to significant sounds, and later from words to sentences (which are really no more than a chain of vocal gestures); and he continually observes the responses. It is not long before he is able to carry on conversations between two parts of *himself*, and praise or reprove or argue with his 'me' almost as if it were another person, thus creating for himself a new world of conversational opportunities and the beginnings of a conscience.

"We divide ourselves up," says Mead, "in all sorts of different selves with reference to our acquaintances."[14] And on a broader scale of organization we respond in a particular way to the whole community or group to which we belong. We can take its conventional point of view, and so anticipate its reactions to us. Within the matrix of this "generalized other," the psychical entity we call the self grows in stature. Thus, if it were not for his contact with other people and his sympathetic understanding of their attitudes to himself, the young human being would never achieve a personality at all. The capacity for reflection and intelligent action, the ability to examine one's needs in an objective way, and to laugh at them and at oneself, are highly elaborate products of the interaction of people. That they are inconceivable without the give and take of the social milieu is Mead's striking conclusion. Mead's account of the developing self and of education's task of producing adjusted personalities has obvious affinities with later movements, such as Moreno's sociometry and Slavson's use of group activity as a means of stimulating individual response. But my reason for speaking of it is that I believe it persuaded Dewey to import the claims and influences of society into his educational pragmatism, and to do so in so powerful a fashion that they have come to influence the whole body of his teaching.[15]

[14] G. H. Mead, *Mind, Self and Society* (1934), p. 142.

[15] Numerous examples of this influence are to be found in J. Dewey, *Democracy and Education* (1916). See especially pp. 6, 36, 344. And *cf.* C. W Morris, *Six Theories of Mind* (1932), Chapter VI. Mr Brian

As all his students are aware, the ideal educational milieu for Dewey is one in which the optimum quality of experience becomes available for each pupil; but this will only be possible when human equality and intellectual freedom penetrate every corner of community life. Dewey's mission as a school reformer thus became a social mission, and the progress which he sought could be realized only in the conterminous framework of school and society. But the pragmatic spirit would not allow that standards by which progress could be measured were anywhere to be found, least of all in history. This created for Dewey a problem of recognition. How do we know progress for what it is? Well, the criterion of progress is what provides the conditions for more progress. Or, look at it another way, and you find that progress is the circumvention of obstacles and prejudices. Positively, it finds a climax in the free, socially aware individual; and, if you can properly claim an aim for education (which is doubtful), it is this kind of individual. Freedom thus has to be *learnt*, not discovered, and it can only be learnt in a group.[16] And this, as I see it, is Dewey's principal message for us, deriving as it does from Mead's discovery of the emergence of the autonomous self through identification with "the other." For Dewey, of course, the only setting for this was a social democracy—a democracy which must be just as real in the school as in government and in industry.

Dewey, as even his most hostile critics admitted, was a great and even noble figure in his generation. That a man of his mental stature and austerity of purpose should

Holmes reminds me of the following sentence which appears in Dewey's funeral address on his friend; Mr Holmes suggests that it is the key to Dewey's own educational message: "The individual mind, the conscious self, was to [Mead] the world of nature first taken up into social relations and then dissolved to form a new self which went forth to recreate the world of nature and social institutions." It is Dewey, of course, who introduced the Hegelian strain into this statement.

[16] These considerations are set out at greater length and with more acuity than I can command in the admirable section contributed to *Modern Philosophies and Education* (ed. Nelson B. Henry, 1955) on the experimentalist approach to education by Professor G. R. Geiger.

modestly give so much of his best work to the redemption from mediocrity of the school for the children of the common man was something which earned him extravagant admiration. His influence on schools, and especially on training colleges, extended far outside the zone of expensive and fanciful progressive experiment. For many thoughtful and forward-looking Americans he became a national portent. I stress to-day only one contribution to the educational thought of two generations, which I believe to have been his enduring service—the idea of the school as a pattern of social action; the idea, that is, that the chief task of the teacher was so to control the child's environment that the result would be a sharing in group purposes within and without the school campus; and this through active personal experience in all pupils, not experience at one or two removes. I have used the word *control* deliberately. Dewey thought of freedom as an attainment to be secured under supervision and guidance. The hazard was not at once apparent: it was that too many were eager to learn from a great man of the virtues of rootlessness.

In a longer study we might have assessed the value of Dewey's curiously vague views about motivation, and his theory of impulses—of what makes us tick—again oddly unsatisfying; and we might have considered the remarkable way in which, in his theory of the learning process, habit and spontaneity reinforce one another. It would have been interesting too to have contrasted the ferocity of Dewey's attacks on all forms of traditional instruction, as he rather naïvely conceived them to be, with the mildness of his objurgations directed to the thousands of school-teachers in the United States and Canada who were taking the easy line that the doctrines of self-realization and activity excused them from applying such resources as they had to the cultural education of their charges.[17]

[17] Shortly before the last war the Executive Council of an organization known as Kappa Delta Pi, recognizing that American opinion was divided into two camps on some of the educational issues with which Dewey had long been associated, invited him to lecture on the " new

Sir Charles Morris said of Plato in the first of these lectures that he tried all his life to show that his deepest convictions had a rational basis. So we may say of Dewey that he tried all his life to show that the doctrine which he came to call instrumentalism could lead to no other conclusion than that democracy of the purest Western model was the only thing in the knowable universe that could claim anything like permanent value. Perhaps I am wrong; but pragmatism as I understand it does not sustain so remarkable a conclusion. Paradoxically, that honest, lumbering, and infelicitous style of Dewey's, which seldom offers a vivid and clear-cut picture of anything, helped to conceal the inadequacy of the pragmatic argument to maintain the position of an earnest radical of the great liberal tradition. Knowing the quality of this courageous mind, you could hardly believe that he could write in so undistinguished a manner. It was as if a craftsman with the genius of a Chippendale deliberately chose to work with odd pieces of plywood and plaster-board that happened to be lying about.

But the style none the less was the man. Unless we except his last years, he seemed deliberately to turn his back on vision. He worked within his limited, self-prescribed means. Precluded from looking beyond the context of our practical outlook, he can offer us no pointer to the destiny of man. And he is the only philosopher of repute who appears to have been utterly bored by the cosmos. What most attracts many students of Dewey—and I count myself of their number—is his robust belief that high intelligence in the pupil, and its capacity for employment towards large and good, though indefinable, ends, are the reward of the sound teacher. This was a fine belief to hold. Was it altogether Dewey's fault that some of his followers found random

---

education." The result, which appears in *Experience and Education* (1938), shows a shrewd appreciation of where many schools had gone wrong, and is an interesting attempt to give a simple and clear account of his own considered views.

activity easier to encourage than free intelligence and the early promptings of genius?

Morris Cohen's remark is not far from the truth: that "Dewey's philosophy is distinctively urban, industrial and entirely public," and that "there are no nooks in his universe which the soul can call its own."[18] Pragmatism, with all its stimulating and eupeptic virtues, cannot exalt activity without at the same time disparaging contemplation. And this it has done consistently since Dewey took over. Life without contemplation and the delicious truancy of idle thinking—what is this to offer to the educated young man or woman, however well adjusted they may claim to be to the tempo of their age and society?

What I would call, in unpragmatic and perhaps too elevated language, the awareness of the eternal is also something which has in part to be learnt by personal *experience*. How far has the pragmatist really tested his hypothesis that awareness is quickened through the action of only five senses? Should we not regard it as a shortcoming of this school of thinking that it lacks insight into the rhythm of night and day? In other words, a sound educational outlook would do well to consider the acceptance of both a principle of growth and a principle of stability; of action and reflection; of works and faith; of the yogi and the commissar; of the *yin* and the *yang*; of the practical instrumentalism of Martha and the intuition of Mary.

Martha, mind you, is a good girl. We must just make sure that she does not overtax her resources.

[18] M. R. Cohen, *American Thought: A Critical Sketch* (1954), p. 298. Morris Cohen admired and criticized Dewey, and always interpreted him fairly. All he wrote on Dewey is worth reading.

V

Behaviourism

by C. A. MACE

BEHAVIOURISM is sufficiently defined as the doctrine that the subject-matter of the science of Psychology is the bodily behaviour of animals and men—that and *that alone.* What is important in this definition is the negative implication that Psychology is not in any way concerned with facts regarding an order of being, states, or processes, to be contrasted with and opposed to the facts of bodily behaviour in the way in which, since the time of Descartes, the facts of mind, consciousness, and experience have been presented as contrasting with and opposed to the facts of bodily behaviour.

As so defined the term might well be taken to cover conceptions of Psychology implicit both in the doctrines of the contemporary of Descartes, Thomas Hobbes, and in the conception of Psychology of many of the predecessors of Descartes, right back to Aristotle himself. It can in fact be argued with plausibility that the main stream in the history of Psychology has been behaviouristic: and that the Cartesian system which has dominated the development of psychology in the seventeenth, eighteenth, and nineteenth centuries has been a deviationist philosophy of mind. It would, however, be confusing so to extend the application of the term 'Behaviourism.' It would obscure the fact that Behaviourism is an 'ism,' an ideology, and essentially an historical phenomenon of the twentieth century. Behaviourism is, first and foremost, a conception of Psychology

presented to the world by John B. Watson, and developed by a small number of Watson's immediate associates and successors such as Lashley, Hunter, Skinner, Tolman, Hull.

Watson's own extreme naïve Behaviourism can now be seen to be about as wrong-headed as any theory could be. There is hardly a point in which it does not stand corrected. Few indeed of its original propositions have not been abandoned, outmoded, or transfigured. Nevertheless, out of it has come a new science of Psychology and a new philosophy of mind. Behaviourism seemed to lose every battle, but it won the war. Now that the fog of the war is beginning to lift, and its dust to settle, it is possible to distinguish some of the salient phases in what must surely be one of the most important revolutions in the history of Psychology—a revolution pregnant with implications, both for the theory and for the practice of education. The behaviourist polemic, launched by Watson in what Woodworth has called its 'founder's manifesto' in 1912, and subsequently developed in his chief works published between then and 1924, consisted of an oddly assorted collection of doctrines having little in common beyond the powerful motivation of an anti-animistic animus. The essential core of behaviouristic doctrine is, as has been said, the thesis that Psychology is the study of behaviour—that and that alone; but this thesis was complicated by a number of quite irrelevant ideological adhesions. Watson took sides on a number of issues that turn, not on behaviouristic principles, but on the actual specific evidence bearing on the issue in question. He adopted an extreme environmentalism, the declared and unqualified faith in the concept of conditioning as the sole principle in learning. He displayed a special animus against the concepts of instinct and purpose. He committed himself to special accounts of thinking and the cognitive functions. On all these matters other accounts not less behaviouristic remained open for exploration.

It became progressively evident that none of these special

theories are essential to the Behaviouristic thesis. It became clear that Behaviourism is not so much a 'system' of Psychology as a methodology. The transition from naïve Behaviourism to the present-day 'Behaviour Theory' can be displayed under two rubrics: the refinement of methodology, and the clarification of concepts.

'Psychology is the study of Behaviour.' This is hardly a controversial statement. What is controversial is the negative addendum 'of *that* and *that* alone.' What is controversial is the suggestion that Psychology is not concerned with mind, with 'consciousness,' or experience as an 'independent order of being.' The negative thesis takes three forms, or is defended on three grounds.

The first thesis is that psychologists should not try to study mind, consciousness, or experience, because there are no such things to study.

The second thesis is that psychologists should not try to study mind, consciousness, or experience, because, even though these things exist, they are not amenable to scientific treatment.

The third thesis is that psychologists should not try to study mind, consciousness, or experience *as an independent order of being*, because, though these things do exist, and do admit of scientific study, they do not constitute an independent order of being, but are reducible to and form part of that self-same order of nature which is the subject-matter of the natural sciences as a whole.

These three theses are very different, but at first they were not clearly distinguished. In the differentiation of these theses during the first half of the present century we see the emergence of both a new science of psychology and a new philosophy of mind. It is the story of a three-cornered argument between psychologists proper, philosophers, and those who are neither straight scientists nor straight philosophers but specialists in the theory of scientific methodology. This is why the transformations in Behaviourism provide material for one of the most interesting and important,

though one of the most intricate, chapters in the history of Psychology.

The first thesis is that Psychologists should not try to study mind, consciousness, or experience because no such things exist. They are like the products of the morbid imagination of medieval monks. Mind and experience, like souls and spirits, like ghosts, ghouls, and hobgoblins, like leprechauns, fairies, and familiars, must be deleted from any reputable inventory of objects found in Nature. This goes for all the objects which people may claim to observe by introspection.

Well, well! What can we say to that? Surely no time need be wasted on it. Few behaviourists, and they only in their most exuberant and irresponsible moments, have seriously attempted to defend this position. There may be good reason for deprecating the use of introspective methods in psychology—but this is not one of them.

The second thesis is: that psychology is not concerned with mind or consciousness, or with the data of introspection, since these things are not amenable to treatment by scientific method. The case here rests upon some general principle of scientific method, but the principle has been stated in many different ways. The simplest statement suggested is perhaps that nothing can be a datum for science unless it has been observed or is in principle observable by two or more observers. This, of course, rules out the data of introspection. One might be tempted to suspect that the principle has been conceived precisely to that end. It is, in any case, not clear whence the principle is derived. The methodological principles upon which Behaviourism has been based are, however, in general derived from theories concerned with the foundation of physics. This is notably the case with 'operationism.' In most of its forms 'operationism' consists in a directive to the effect that any concept used in an empirical science must be given an 'operational definition'—that is to say, the concept must be defined with reference to the operations performed and the instruments used in establishing that the concept applies. Thus the con-

cept of ' length ' is defined in terms of the scale marked on the rulers we used. Time is defined in terms of the ticks of clocks. Space and time are defined in terms of the observations we make in using rulers and clocks, and the operations we perform in calculation. Rather more subtle variations of the principle of operationism are those contained in the elaboration of the ' verification principle '—" the meaning of a term lies in its method of verification," an epigrammatic formula for the doctrine that to decide whether anything is *a* or *not a* we must specify the observations, the perceptual experiences which would be accepted as establishing the statement that the thing is *a*, and the observations or perceptual experiences which would falsify the statement that the thing is *a*. An operational definition is essentially an ' observational definition '—a definition in terms of observations—provided they are not ' introspective ' observations. The thesis has been developed in its most persuasive and its subtlest form by Ludwig Wittgenstein and his disciples. But there was nothing very subtle in the methodological doctrines of the early Behaviourists. Introspective evidence was rejected mainly in consequence of the exasperation provoked by current discussions concerning imageless thought, and on the pragmatic ground that here as in so many cases the evidence of introspection is conflicting and inconclusive.

The most subtle form of Behaviouristic theories arises from the development of the third thesis : namely, that Psychology is not concerned with mind, consciousness, and experience as an independent order of being, because mind, consciousness, and experience are not an independent order of being. I have elsewhere attempted to define this doctrine more precisely, and have called it ' Analytical Behaviourism.'[1] Analytical Behaviourism is the doctrine that, in the last analysis, the facts of mind, consciousness, and experience *are* facts about the behaviour of living material

[1] *Proceedings of the Aristotelian Society*, Vol. XLVIII (1948–49), " Some Implications of Analytical Behaviourism."

things and the material environment in which these things behave.

Analytical Behaviourism can claim to be an important form of operationism, and one that avoids some of the more serious objections to which other forms of operationism are exposed. " I define ' temperature,' " says the operationist physicist, " in terms of readings on a thermometer." To the behaviourist and his fellow-travellers in psychology this seems a grand idea. So these psychologists say, " We define ' intelligence ' in terms of scores on an intelligence test. Intelligence is what intelligence tests measure. Neuroticism just is what is measured by this or that ' neurotic inventory.' "

But it really is not quite as easy as all that. There are needs for safeguards against circularity. When the physicist defines ' temperature ' in terms of, or by reference to, readings on an instrument he takes the precaution of establishing that the instrument in question is a *thermometer* and not a rain-gauge. And a thermometer can be defined only as an instrument that measures temperature. Definitions, like tests, must be validated. And the validation of a definition always requires that it should be tied up in some way with the ordinary use of words. We can define ' intelligence ' as what is measured by a Binet Test just in so far, and only so far, as the Binet Test has been validated by reference to some external criterion. As a matter of historical fact, Binet went to a lot of trouble to ensure that what his test measured had the required relation to real-life performances in terms of which teachers and others rated a child as more or less intelligent.

Any general application of the principle of operationism in the interests of behaviourist theory must stand or fall according as an operational definition of ' mental phenomena ' in terms of observed and measured behaviour can be validated—that is, shown to tie up with the ordinary use of words. That operational definitions of ' mental phenomena ' do so tie up is the thesis of Analytical Behaviour-

ism. So in what follows the case for or against operationism will be taken to be equated to the case for or against " Analytical Behaviourism."

At first blush this version of Behaviourism might seem to be as preposterous as all the other variants of behaviouristic theory, but the impression of paradox is in some measure relieved by considerations which arise when the basic behaviouristic concepts are reviewed and redefined.

These basic concepts are *Stimulus, Response, Environment*, and the concept of *Behaviour* itself. Advances in Behaviour theory followed when psychologists asked the questions: What is this 'behaviour'? What shall count as a bit of behaviour? How is one bit of behaviour to be distinguished from another? Watson had talked as if behaviour consisted just in muscular contractions. This is the original and authentic 'muscle twitch' psychology, and it needed correction in several important ways. First, the term must be defined to cover not only actual muscle twitches, but also 'sets' and 'dispositions,' in terms of which so many important 'mental attitudes' are defined. The concept of an 'attitude' as a *set*, a *disposition*, or a *state of readiness* to behave in certain ways, rather than as a way of 'feeling' or behaving, was becoming increasingly central to the expanding science of social psychology, but once the distinction was seen at all it was seen to be equally relevant to the more general 'attitudes' including those traditionally classified in the tripartite division of 'cognition, feeling, and conation.' Even in the nineteenth century Alexander Bain had given a 'dispositional analysis' of belief, and it was a retrograde step when James described belief as a feeling 'more like an emotion than anything else.' The early behaviourists, too, were making things difficult for themselves in trying to defend the position that when we are believing, loving, and hating we are always actually doing something, actually behaving in some way. It was their philosophical allies who were the first to see how much of what constitutes the mind consists in *dispositions* to behave

in certain ways. The battle for a muscle-twitch psychology was a minor battle, but it was lost. It was one of the lost battles that helped to win the war, for the Behaviourists were compelled to retreat to a very much stronger position—the doctrine that Psychology is the study of behaviour and of the *dispositions to behave* in certain ways. A very much more radical refinement of the concept of behaviour has come about through the increasing recognition that behaviour and dispositions to behaviour can be described only with reference to objects with which the behaviour or dispositions to behaviour are concerned. A sneeze or a knee-jerk can be described in terms of the contraction of certain muscles; but such cases are atypical. Most behaviour is concerned with an object or situation, and the behaviour cannot be described without reference to this object or situation; and one form of behaviour cannot be distinguished from another form of behaviour without reference to the object or situation to which it is related. The distinction between talking to an audience and talking to oneself is not a distinction between two sets of muscular contractions. They may be the same in the two cases, but one is normal and the other eccentric behaviour. If we compare the behaviour of a man using a hammer to drive in a nail with the behaviour of a man playing charades, miming the act of using a hammer to drive in a nail, the two actions considered as a collocation of muscular contractions are similar, but as *behaviour* they are very different. The difference is one which was described by old-fashioned psychologists in terms of the concept of 'objective reference.' It may be recalled that one of the most tortuous arguments in Titchener's lectures on the Experimental Psychology of the Higher Thought Processes[2] was concerned with Brentano's thesis that the essence of mind consists in 'reference to an object.' Brentano's own rather obscure doctrine was made even more obscure by its being linked with the scholastic notion of 'intentional inexistence.' The main point at issue, however, was Bren-

[2] Lecture II.

tano's thesis that the 'reference to an object' or the distinction between act and content was invariably present in whatever could be described as mental, and that nothing at all like this distinction can be found outside the realm of mind. Titchener argued both that the distinction is not invariably found in what is mental, and that something like it can be found in Nature outside the realm of mind. His arguments were quite as obscure as Brentano's, and the whole discussion was of a kind that would be intolerable to any behaviourist. It was precisely the sort of argument up with which they could not put, and a stop to which they were out to put. But Time has its revenges, and it would seem that the whole case of Titchener *contra* Brentano has to be argued again in terms of Behaviourism.

The essential issue can be stated quite simply. Brentano had said that just as you cannot perceive or believe without perceiving or believing something, so you cannot desire without desiring something, you cannot be pleased without being pleased with or about something, and you cannot be angry without being angry with somebody or about something. This feature of 'reference' is universal in psychology. The counter-argument runs: Not at all. I can be pleased without being pleased with or about anything. I can just be happy. I can be angry without being angry with anybody or about anything. I can be just in a bad temper. The argument was conducted, however, with regard to mysterious entities, psychical acts or states of mind. But it can all be translated into behavioural terms, and on the principles of Analytical Behaviourism it must be so translated. Whether all behaviour can be described as having reference to an object may be disputed, but directly we consider more precisely what behaviour is, and how one kind of behaviour is distinguished from another, it becomes clear that the concept of 'reference' is important. It is another sector of the line in which the battle for a muscle-twitch psychology was lost.

This in turn leads to another radical transformation of Behaviouristic theory.

Behaviour is not only in general concerned with an object, it is also in general directed to an end. What distinguishes the actual use of a real hammer from a bit of mimicry is that in the realistic behaviour the muscular contractions are organized, co-ordinated, varied, adjusted, and directed to the attainment of the end : the driving-in of a nail. In the mimed act the end is different. One bit of behaviour differs most importantly from another in respect of the respective goals to which they are directed. The significant unit of behaviour is not the 'simple reflex' but a cycle of changes which has its termination in the attainment of an end.

Tolman is usually credited with the discovery that all behaviour is goal-directed, and he is the acknowledged creator of 'Purposive Behaviourism'; and certainly he did more than most to save Behaviouristic theory from the consequences of its early over-simplification in the treatment of goal-directedness.

But here justice demands some recognition of the contributions of McDougall. It is conceded that McDougall was the first to define Psychology as the study of Behaviour. He was also the first to see that all behaviour—as the term is most conveniently employed—is goal-directed. It is true that he stressed the introspective correlates of purposive activity, but it is also true that he was the first to give a strictly behaviouristic analysis of purposive activity.[3] In his famous debate with Watson in the Psychology Club at Washington in 1924 McDougall claimed that he himself, not Watson, was the arch-behaviourist. And in the upshot the claim is not entirely groundless. From the outset McDougall's analysis of behaviour was subtler than Watson's, and his claim that all behaviour is goal-directed is now widely accepted, not only by psychologists but by biologists generally. And so another battle was lost.

We turn to the Second Front—the disputes concerning the nature of 'Stimulation' and the concept of 'Environ-

[3] This he does in his *Outline of Psychology* under the heading "The Marks of Behaviour."

ment.' As the early behaviourists retreated from one position to another in their analysis of the 'response,' so they retreated in their analysis of the 'stimulus.' The initial position was roughly that the environment to which the organism responds consists in the totality of optic, auditory, thermal, and other physico-chemical agencies directed upon it. But, of course, it must be agreed that it reacts selectively. It responds to the world not so much as that world is in itself, but to the world as it appears. It responds not to the world as described by physics but to the 'material' world of common-sense objects and situations. Now can these facts be stated in a way that is coherent with a behaviouristic position? At the outset the behaviourists were unhappy in their treatment of the facts of 'sensation' and perception, and not less unhappy in their attempts to deal with the facts of memory and imagination. At first the attempt was made to substitute for sensations and images the verbal reports of their subjects concerning these 'experiences.'

It was Hunter who found a line of escape from the consequent perplexities and absurdities. His suggestion was that behaviourists should admit that what are called sensations can be taken to be just what they seem to be, and they need not be identified either with stimuli, or with their neural correlates, or with verbal reports. They can, however, be excluded from psychology just because they are what unsophisticated people take them to be, not part of the mind, but part of the 'environment.' Behaviourists are under no necessity to attempt to give a behaviouristic analysis of the 'objects' to which behaviour refers. Sensations are not strictly 'mental.' This view, of course, is in line with that of the philosophical 'realists' and the 'neutral monists.'

The position now reached is this: Psychology is a study of the responses of an organism, and of its dispositions to respond, to objects and situations in its environment as those objects and situations appear. What we call its acts and attitudes to these objects and situations can be 'reduced without remainder' to goal-directed behaviour

of a bodily kind and to 'states of readiness' for such behaviour.

The position remains a little untidy, but the job of tidying up can be left to some one else. The psychologist, like the physicist, is under no obligation to explain the relation of the world 'as it appears' to the world as it 'really is.' This is a problem which the physicists and psychologists can pass on to the philosopher, who appears to be only too willing to take it up.

But in accepting Hunter's suggestion another battle was lost. Behaviourists accepting it retired to a new position. Nevertheless, even in this position they are not impregnably entrenched. If they accept the environment as it appears to the behaving organism they must, if consistent, accept the behaving organism as it appears to itself. They must also accept the behaviour of that organism as it appears to the organism itself. If you accept the environment as it appears in vision you must accept the organism as it appears through the proprioceptive and the interoceptive senses. And you must accept the behaviour of the organism as it is presented through these senses. In short, the behaviourist suffers the supreme humiliation of finding a place within his system for some at least of the facts of introspection.

If we accept the evidence from vision about our own behaviour when we look in a mirror we must accept the evidence which we receive regarding our own behaviour from other senses when we grope about in the dark. If we accept evidence regarding the environment which we receive when we see a flash of lightning in the night we must accept evidence we have about our own condition when we feel a pain in the neck.

The case for taking 'subjective' reports as scientific evidence is not entirely an *a priori* case. There is a mass of relevant empirical material that bears on the case. For example, in 1939 A. Proetz reported on "some preliminary experiments in the study of cigarette smoke and its effects on the respiratory tract." Proetz arranged for eight medical

observers to examine the throats of some twenty-six subjects over a period, so that some 1293 judgments were obtained. The discrepancy between the 'objectively' based judgments of these observers was extremely great, and Proetz concluded that the most reliable indication that could be obtained of the effects of smoking consisted in the subjects' own awareness of having a sore throat.[4]

Moreover, if we accept the evidence which we receive from pains in the neck or throat we must accept the evidence of a pain in the heart. If we accept the evidence of our 'feelings' we must accept the evidence of our thoughts. Knight Dunlap reports somewhere the following rather instructive case:

A colleague was making an experimental study of the rhythms to be observed in human movements. He arranged for a subject in one of his experiments to tap a key through a fairly long period, no special instructions being given as to the rate or manner in which the tapping was to be performed. The records showed that the tapping was neither perfectly regular like the ticks of a clock nor entirely random. They displayed a distinctive and well-defined rhythm. Knight Dunlap's comment was invited, and in studying the records he observed that the rhythm corresponded to that of the catchy tune of a popular song which was having a vogue at the time. So he naturally inquired whether the experimenter had asked whether the subject was thinking of this tune during the course of the experiment. "Oh, no!" came the shocked reply. "I should not ask for introspective reports. I am a Behaviourist." Now, really, are there no limits to the absurdities to which a psychologist can be led in the interests of a doctrinaire methodology? Is it not better to be prepared to consider evidence, whatever its nature, from whatever sources we may obtain it?

[4] A. Proetz, *Annals of Otology, Rhinology and Laryngology*, Vol. 58, No. 1, 1939. (I am indebted for this reference to Dr D. H. Irvine, who cites the case, in a quite different connexion in his Ph.D. thesis entitled "An Experimental Study of Human Variability in a task involving Visual Inspection.")

Further, if we accept the evidence of our senses and our 'thoughts' regarding things that are now happening inside us, we must accept the very similar evidence we have concerning our 'dispositions,' our 'abilities,' and our 'inclinations.' We have proprioceptive evidence that we *can* do certain things but cannot do others. We have proprioceptive evidence that we are tempted to commit certain sins and not tempted to commit others. Where shall we stop? Clearly the naïve Behaviourists have lost another battle. To have lost the battle of introspection might well seem to be a capital disaster. But, though the Behaviourists lost every battle, they won the war. How could this be?

The Behaviourists won the war because whenever they lost a battle they retired to a stronger position, and their enemies won their battles only by the sacrifice of traditional assumption. They too had to take up new positions.

In the earlier editions of his *Contemporary Schools of Psychology*, R. S. Woodworth gave prominence to what he called "The Established Order" dominant before the rise of the modern schools. The Established Order was based on a Philosophy of Mind based on the dualism of Descartes and a system of empirical psychology based on the principles of Wundt as interpreted by Titchener. This order has been dis-established. There has emerged a new Philosophy of Mind and a new science of Psychology which, though not committed to Behaviour*ism*, is a philosophy and a science of behaviour.

Behaviour*ism* is dead. But as we gently lower its coffin into the place prepared for it we can afford to forget past disputes and take off our caps in respectful homage to its achievements and its contribution to Psychology as a science, and less directly to the philosophy of mind. When, standing back a little, we review the history of man's ideas about himself and his place in Nature, it is difficult to resist the impression that the main stream in this history is one that finds expression in a 'materialistic' or at least a 'naturalistic' monism from which idealistic and dualistic philosophies

are minor deviations. We could trace the course of this stream from the most primitive conceptions of the soul or spirit as a quasi-material ghost, through the Greek atomists, through Aristotle himself (who might be claimed as the first 'Behaviourist'), through the doctrine of 'sensible species' and the doctrine of animal spirits, through Tertullian and the Christian materialists, through Hobbes and later some minor philosophies of mind in the eighteenth and nineteenth centuries. Against the picture which emerges the Cartesian dualistic system might well appear to be the philosophy of a 'deviationist.' This part of the story belongs to the history of the philosophy of mind.[5]

The new science of Psychology which describes itself as the study of Behaviour has no ideological commitments and no doctrinaire methodology. It prefers to work with the objective methods of the other biological sciences, but it does not exclude an appeal to any kind of evidence whatever, even 'subjective' evidence that appears to bear upon the case. Professor Zangwill, in his inaugural lecture at Cambridge, stated what might fairly be described as a position representative of the approach of most contemporary psychologists. The position is one which leans very heavily on the work of neurologists, but in its presentation there occur the following obviously measured and well-considered words:

> The sensory physiologist, it is true, is making increasing use of methods involving direct electrical recordings from the sense organs, the afferent nerves and even the cortex itself. Yet I venture to predict that at no time will he be able wholly to dispense with the testimony of the human observer. The psychologist on his side is assembling an increasing body of data in the field of perception which is likely to provide important material for neuro-physiological correlation.

[5] Some other aspects of the latter part of this story are developed in my paper on "Some Trends in the Philosophy of Mind," in *British Philosophy in Mid-century: A Cambridge Symposium* (Geo. Allen and Unwin, 1957).

Lord Adrian, as a representative of a science on which psychology now so heavily leans, speaking of the difficulties of the physiologist in understanding the process of thought, suggests that the problem will be solved only by the enlargement of the boundaries of natural science 'by the progress of psychology for instance.'[6] It could be not unreasonably argued that the boundaries of natural science are in fact being enlarged by a chastened and enlightened behaviourism—a behaviourism without ideological adhesions, and a behaviourism for which no kind of evidence is in principle unclean—not even the evidence of an introspective report.

Behaviourism has made significant contributions to advances in the Philosophy of Mind and to advances in the Science of Psychology. Has it made equally significant contributions to education and to the humanities?

The contributions of Behaviourism to the science of behaviour are greater in promise than in actual performance. Learning theory as developed by Thorndike, Pavlov, Watson, Skinner, Hull, and a host of other brilliant experimentalists in the behaviourist tradition has been more in the way of *explaining* than in *advancing* the present knowledge of those who teach and learn. What these psychologists have given to education is a firm experimental approach which cannot fail sooner or later to contribute to teaching techniques. They talk about things of which teachers have experience; and, apart from some lapses into regrettable jargon, they talk in a language which teachers can understand. The passing of the Cartesian philosophy of mind and of the Titchenerian tradition in empirical psychology cannot fail to bring relief to students of education. No psychologist can review the history of educational psychology without a pain in his heart, and a twinge of remorse, for what students of education have suffered in the study of his science.

Ward's *Psychology Applied to Education*, to take one example, was a remarkable work in the older philosophical

[6] In a broadcast discussion of the problem of "Body and Mind."

tradition (I speak of this author and of his book with profound respect—Ward was one of my own revered teachers). But what the teacher learns in the study of this book is what he can learn from a wise, experienced, and enlightened humanist interest in the problems of education. In this work Ward's discussion of educational problems contributes more to the understanding of Ward's difficult psychology than this psychology contributes to the study of education.

Similar frustrations are encountered in the study of works in the Titchenerian tradition. One recalls, for example, long and intricate discussions of the experimental study of attention—of the laws of attention, of its conditions and effects—but how little there is in all these discussions which can aid the teacher confronted with the problem of the inattentive child! Almost alone among the works of the older psychologists which teachers read with pleasure as well as profit is James's *Talks to Teachers*; but James really belongs to the new order—to those who have constructed a new psychology as the study of behaviour. The teacher can derive hope from the behaviouristic movement.

What has been the contribution of Behaviourism to the larger humanities?

Watson's name, Professor Zangwill has remarked, will for ever be linked with certain brash pronouncements on the non-existence of mind. It will also be for ever linked with certain brash pronouncements on the subject of education and the control of individual development. Most often quoted is the famous boast that, given any normal infant, he would guarantee to make of this child by the process of conditioning anything he willed—doctor, artist, lawyer . . even beggarman and thief. Happily this was indeed nothing more than a boast. Had it been more, psychologists might have been more responsible than they are for certain sinister developments in the modern world. Indeed, the theory of conditioning has often been referred to in this connexion, and has been fittingly satirized in the works of Aldous Huxley and of George Orwell. Watson's claim was

the expression of an aspiration, not of an achievement. The aspiration had indeed been voiced long before the beginnings of the Behaviourist movement. In 1903 James McKeen Cattell, one of the pioneers of modern American Psychology, had written:

> It is our business to make both a science and an art of human nature. As in the physical world we select first the material suited to our purpose, and turn the iron into steel, and temper the steel for a knife, so in the world of human action we must learn to select the right man, to educate him and fit him for his exact task. This indeed we try to do in all our institutions, religions, commerce, systems of education, and government. But we work by rule of thumb—blind, deaf and wasteful. The nineteenth century witnessed an extraordinary increase in our knowledge of the material world, and in our power to make it subservient to our ends; the twentieth century will probably witness a corresponding increase in our knowledge of human nature and in our power to use it for our welfare.

This prospect so persuasively presented by Cattell cannot be viewed by any scientific humanist without grave misgiving. Who are "we," so charged with responsibility for practising this 'science and art' of human nature? Are "we" the psychologists and teachers? Can psychologists and teachers be given absolute power, any more than priests and politicians, to mould and control the lives of individuals? No man is qualified to assume more than a limited responsibility for the destiny of his fellow-men. The 'art' of human nature lies not in the skills of manipulation or of human engineering, but in the skill of fostering development to a point at which the individual assumes responsibility for his own self-direction. This is the art of the parent and the teacher, and it is in this that parents and teachers differ from priests and power-politicians. The latter would keep their fingers on the strings throughout the whole lives of their puppets. Parents and teachers are not concerned with puppets but with personalities. There comes a point in the

course of development at which parents and teachers take their hands off the controls.

Indeed, the most important application of a science of behaviour is to provide, not the means for, but the defence against, exploitation and manipulation. This it does by providing the individual himself with a better understanding of his own nature and of the forces that play upon him. Thereby he is forewarned and armed against those who would engineer his life for ends other than his own.

In the first quarter of the present century psychology was little more than a collection of conflicting schools. In the second quarter we can discern a movement in the direction of integration. We can observe, too, greater mutual respect between those who approach their subject from different points of view. There is, moreover, a trend towards a more comprehensive picture of the nature of man, and a greater respect for the individuality of the individual.

VI

Logical Positivism

by W H. F. BARNES

It is natural to suppose that a philosophical doctrine must have its educational message. It is obviously true in some cases. There are philosophers who have actually delivered that message in the form of a philosophy of education—notably Plato in the ancient world and Dewey and Whitehead in the modern world. But it is by no means generally true.

It would be difficult to find an educational message or a philosophy of education in Cartesianism, though consequences for education can be—and, indeed, have been—drawn from its philosophical doctrines. This is the case too with Logical Positivism. The reason for this difference between philosophies is clear. Philosophers like Plato, Dewey, and Whitehead are comprehensive and range over theory of knowledge, metaphysics, moral philosophy, political philosophy, and so on; and their impetus easily takes them over into education, psychology, sociology, and other fields. The other philosophers apply themselves more narrowly. They are logicians, epistemologists, or moral philosophers, and they have little or nothing to say outside their chosen branch of philosophy. Nevertheless, it is usually possible to discover some implications for educational theory and practice in their philosophical work.

There is, however, a special reason why we cannot expect as much from Logical Positivism as from other specialized philosophies; it is part of the Logical Positivist's position

that philosophy cannot by its very nature make any contribution to the stock of human ideas or the sum of human knowledge, since it has no constructive but only an analytical function. It will be necessary, therefore, to winnow very carefully the philosophical doctrines of Logical Positivism in order to discover any educational grain that may be concealed beneath the formidable husks of logico-philosophical analysis.

I will begin with some preliminary remarks. Logical positivism, it may be said, is the doctrine of a school of philosophers which arose in the twenties in Vienna—the so-called Vienna Circle—and made a number of converts elsewhere. When the original members of the circle died or scattered Logical Positivism died also. What exist now are philosophical movements related in various ways to that original movement but consisting of philosophical groups whose members would not call themselves, nor wish to be called by others, Logical Positivists. I propose to look at some of the philosophical doctrines of Logical Positivism in its heyday; then to try to discover what educational implications these doctrines have; and finally to glance at the current mode of philosophizing in this country which, in its empirical, un-metaphysical, and linguistic approach to philosophy, owes a great deal to Logical Positivism. What I shall not attempt to do is to give a history, or anything remotely resembling history, of Logical Positivism with names and dates and affiliations. It is with some of the basic ideas that I shall be concerned, not with individual thinkers.

Logical Positivism

Logical Positivists regard themselves as having brought about a revolution in philosophy. To understand and appreciate their principles it is necessary to have some idea of the traditional philosophy against which they were revolting, or rather of what they themselves took this traditional philosophy to be. They regarded traditional philosophy as claiming to provide knowledge which was not only different

from any that was, or could be, provided by the methods of the sciences, but was also a higher or superior kind of knowledge. This knowledge was thought to be superior on two counts. In the first place, it was knowledge, not of the everyday things or happenings which are accessible to observation, but of things or entities which altogether transcend any observation, entities such as the soul and God. If it was asked how these entities could be known the answer was that, apart from the ordinary empirical or *a posteriori* reasoning from observations and experiments, there was the *a priori* reasoning of the philosopher, which proceeded in complete independence of the data of the senses. In the second place, it was superior because it was knowledge of the whole or Reality (with a capital R) or the Absolute. In a sense—though in a very curious sense—it subsumed scientific knowledge under it.

What struck the positivists about these claims was that, whereas there is a steadily developing and agreed body of scientific knowledge, independent of race or clime, each philosopher had his own philosophy which he put forward as the truth, but which no other philosophers could be persuaded to recognize as such.

Moreover, traditional philosophers, though ostensibly concerned with the whole of Reality, tended to occupy themselves very largely with certain crucial questions such as the existence of God, the freedom of the will, the relation between mind and body, the existence of the external world, and so on; and on their answers to these questions parted company. Sometimes philosophy became simply the discussion of these questions, questions endlessly debated and never definitively solved. The inability to solve these perplexing problems was traditionally held to be attributable to the fact that they are extremely difficult questions. The Logical Positivists were not content to accept this explanation. The impetus to their philosophical doctrines sprang from the question: Why is it that scientific questions can be answered and philosophical questions cannot? Why is it

there is agreement about scientific theories but never about philosophical theories?

The key to these questions lay for the positivists in language. If only language and the way it works were understood it would be possible to say both why scientific questions can profitably be asked and answered, and why philosophical questions cannot. Attention to language was thought to help in two ways. First, it showed—or was thought to show—that a great many philosophical questions, though seeming to be about matters of fact, were really questions about the language in which we speak of the facts: or if they were not questions *about* language, they were questions which we were led to ask because we had got entangled, as it were, in the subtleties of our language. To clarify the language involved will be either to answer the question or to show that it does not properly arise. This process of clarification was given a special twist in the early days by the dogmatic proclamation of a principle about meaning which was supposed to be a kind of touchstone for distinguishing a meaningful statement from a meaningless one. I refer, of course, to the so-called Principle of Verification. I think this was a most unfortunate turning for the theory to take. What might have been a cool and impartial analysis of the language used in all fields became a militant movement parading under a banner inscribed " Down with philosophy!"

Unless we ourselves are to get tied up in our language here, I must add two glosses to what I have said. Many early positivists preferred to say that, in disentangling the problems traditionally posed by philosophers so as to show that they were either questions about language or not proper questions at all, they were pursuing analysis and not philosophy, thus reserving the term philosophy for a profitless form of inquiry to be avoided at all costs. Others—notably Professor Ayer in this country—preferred to say that analysis was philosophy and to reserve the terms *metaphysics* and *metaphysical*—terms which already carry with them a suggestion of obscurity—for the time-wasting pursuits of

traditional philosophers. There was ample justification for this use, in that nearly all philosophers have in some sense practised analysis. It is this use that has prevailed, and for many years now *metaphysical* has had among positivists the undertone of *meaningless.*

The other point is that the positivists' interest in language was derived, not from the linguists, but from the logicians. It was the development in this century of a non-Aristotelian formal logic which turned away from logic as the study of thought to logic as the study of the formal relations between sentences, which provided the stimulus. Only recently has the interest in language tended to dominate and transform the conception of logic which produced it.

The Principle of Verification lays down the conditions under which a question or statement has meaning. From this principle flow three vital elements of positivist philosophy: (1) the positivist philosophy of science in which the nature of the statements, methods, and techniques in science are elucidated; (2) the attack on metaphysics which consists in trying to show that metaphysical statements and questions are meaningless; and (3) the attempt to give some account of moral judgments consistent with the principle of verification.

The principle is a way of formulating the basic doctrines of empiricism in terms, not of what sorts of things can exist, but of what sorts of things can be said. Positivism gave philosophy a tilt by which words, sentences, talking, language, etc., became the object of attention, rather than ideas, thoughts, thinking, theory, and so on. The principle depends on a division of statements into two classes: those which are analytic, in which mathematical statements fall as well as what we ordinarily describe as tautologies, and those which are empirical, or deal with matter of fact. The principle has been formulated in many ways, but never, I think, in a way that has not provoked criticism. Put in a deliberately simple form, it says that a statement has meaning only if it is either analytic or empirically verifiable.

Obviously in this form the principle leaves large scope for different interpretations. Are statements about entities which cannot be directly observed, such as electrons, empirically verifiable? The answer 'No' would make the principle cut at the roots of science. The answer 'Yes' compels some considerable thought as to what exactly constitutes empirical verifiability.

Given the desire, which positivists in fact cherish, to defend the statements of science, there are broadly two ways of proceeding. One is to stick to the notion of direct verification and treat statements about electrons as analysable ultimately into statements about what is directly observable, and to apply the same kind of "reduction" where other similar problems occur. This way lies Phenomenalism, and by pursuing this track positivism harks back to its empirical philosophical ancestors, Berkeley, Hume, and John Stuart Mill.

The other way is to broaden the notion of verification so that some sort of indirect verification is an adequate guarantee of meaningfulness. This way does more justice to the attitudes and procedures of the scientists. But it is extremely difficult to formulate satisfactorily. Even supposing a satisfactory formulation could be reached which would include all the kinds of statements which scientists wished to make, and would exclude the more questionable statements which philosophers make, what confidence would we have in it as a test of meaningfulness? Granted that philosophical statements failed to conform to it, might they not have some more tenuous relation to what is directly observable which made them differ from scientific statements without rendering them meaningless? In its simple form the principle has a self-evident look, but will not fit the facts; when tailored to fit the facts it loses any appearance of being obviously true. The position at the moment is that no formulation of the principle has commanded general assent, and philosophers in the positivist tradition have given up the attempt to produce a satisfactory formulation, though there

persists a widespread working assumption that the principle in some form is true.

The main purpose of the principle, when it was first formulated, was to put a stop to philosophical disputes by showing that the questions and statements which occur in them are meaningless. Disputes about the existence of God, the freedom of the will, and the existence of the self were obvious victims for this particular guillotine. As generally happens in the early stages of all revolutions, heads rolled at a considerable rate. Not merely metaphysical aristocrats but even the common-sense bourgeoisie were decimated. Metaphysical writings of the great philosophers were branded as nonsense; though the absurdity was somewhat tempered by the qualifying reminder that, though they were literally nonsensical, they might, like poetry, express profound or permanent human feelings through their literal nonsense. Many borderline cases arose, particularly in the field of epistemology, which borders both psychology and metaphysics. How, for instance, do we verify that behind the smiling or frowning faces we meet, and underlying the voices we hear, there really are other people with their own private and unobservable thoughts and feelings? Here is the thin end of a very substantial wedge. Of course, we can be brazen and say that even to suppose that there is anything whatever lying behind the visual and other data is to hold a 'metaphysical' doctrine, and therefore to talk nonsense: or we can try to extricate ourselves by modifications of the Verification Principle. The strict application of the principle leads to Phenomenalism and, even worse, to Solipsism. For, although it is perhaps just possible to convince oneself that other people are to be conceived solely in terms of observed data, it is impossible to apply the same reduction to oneself, the observer. The 'I' remains an irrational surd in the phenomenalist account.

I turn now to the third point, the positivist account of religious belief and moral and æsthetic judgment. Metaphysics was rejected, and with it the traditional theologico-

philosophical proofs of God: not because the proofs were examined and found wanting, but because the conclusion that there is a God is unverifiable, and therefore makes no sense. No conceivable premisses could support a meaningless conclusion. In so far as religion involves holding beliefs about God it would fall under the guillotine. And it is a matter of fact that many of the early positivist writers were not in fact religious persons, were not even much interested in religion, and in some cases were actively rationalist in outlook.

But what of moral beliefs and judgments? Intellectuals are frequently ready to jettison religion, but they seldom wish to throw out ethics along with it. Yet the problem of the moral judgment's status is serious for the positivist. Since moral judgments are clearly not analytic, they are either verifiable, in which case they are judgments of a factual nature, or they are not verifiable, in which case they are not judgments at all. A few positivists took the first turning. On this view moral judgments about the rightness or wrongness of actions are statements about the consequences of the actions, to the effect that happiness or social well-being or some other consequence will follow from the performance of the actions. People, it is assumed, agree in desiring happiness or whatever it may be, and their moral judgments have reference to this desired end. On this view judgments that people ought to pursue happiness or some other end cannot occur. On the second alternative, which has found more favour on the whole, moral judgments are not judgments at all: they look as though they say that something is so—lying *is* wrong, charity *is* good—but in truth they are literally meaningless. If the matter were left here the position would be intolerable. For clearly moral judgments are an essential part of social communication. We cannot dispense with them, we put them forward to one another for acceptance or discussion, we challenge them, we seek to revise or modify them. In all these respects they behave and play a rôle very like judgments. The sting of branding them as

meaningless is to some extent drawn by the positivist insisting that they nevertheless have a function in communication. On one view they serve to express feelings or attitudes, on another view they are crypto-commands whereby we exhort, encourage and persuade others to do the actions in question, and perhaps sometimes they are commands addressed in a queer sort of way to ourselves. Nevertheless, although they are meaningful in all these ways, moral judgments—and this is the point—do not say anything which is true or false.

There are three other doctrines which were commonly preached in the early days of positivism, though I do not think that they ever had the status of positivist orthodoxy. First, there is the doctrine known as the Unity of Science, or Physicalism. This is the doctrine that all scientific statements can be translated into the language of physics. It is obvious that this is simply a logical formation of a thorough-going materialism. It would rule out any sort of vitalist doctrine in biology, and *a fortiori* any reference to mind in the explanation of human conduct. Much post-positivist philosophy has been oriented towards materialism and behaviourism: but by no means all positivists have subscribed to the doctrine. Some have continued to accept feelings and thoughts as having a status distinct from that of the material world.

Secondly, there is the doctrine that we might call 'Atomic Sensationalism.' This is the doctrine that all the statements of science are truth-functions of certain atomic or basic statements. These atomic statements, on one view, correspond to atomic facts which present themselves in our sensory experience. Basic statements constitute the bricks, as it were, out of which the various theoretical structures of science are built. Considerable controversy raged over the question of the correspondence of statements with facts. The notion of a correspondence of this kind had a somewhat 'meaningless-metaphysical' ring about it. Some positivists held that there was no necessity to introduce the notion of cor-

respondence of this kind at all. Science, in their view, was built up out of the atomic statements, which they called protocol statements; these were records of particular observations made at particular moments, and it was unnecessary and unfruitful to suppose anything behind these records.

A third doctrine, more important for its persisting influence, is the notion of logical syntax. This is the notion that a language, whether natural or artificial, consists of symbols which are used in accordance with two sets of rules: formation rules, which govern how different kinds of symbols can be united to form sentences, and transformation rules, which govern how different sentences can be transformed into other sentences. The formation rules correspond to what would ordinarily be called the grammatical syntax of the language: the transformation rules to what would be called the rules of inference. The notion of logical syntax involves the claim that rules of inference do not depend, any more than rules of grammar, on meaning and have no closer relation to thinking. From this follows a distinction between speaking about things, as when we say 'The rose is red,' which they called speaking in the material mode of speech, and speaking about words, as when we say 'the word "rose" is a thing-word,' which they called the formal mode of speech. When we say, as we might, 'The rose is a thing' we speak as though we were talking about a thing, the rose, but in reality we are talking about the word 'rose,' and saying only that the word rose is a thing-word. But we are doing so misleadingly. Traditional philosophy has misled itself in this way by seeming to be saying things about the world when it has only been saying things about how we speak about the world.

The Educational Implications

If we reflect on the doctrines of Logical Positivism we can see that they represent or involve changed attitudes towards the world which cannot fail to have repercussions on the educational process. I propose to consider first the effect

of such doctrines for the underlying attitude of the educator; secondly, the effect—so far as this can be separated from the former—on the content of education; and lastly, the effect on educational methods and techniques.

First let me turn to the effect on underlying attitude. The positivist has redrawn the map of knowledge. Philosophy disappears as a voyage of discovery or an organised system of knowledge. Theology is a chimerical undertaking because there is no transcendent reality. Religion can at best exist as conduct, emotion, and ritual, to be encouraged or discouraged according to its practical results; and the conclusion that, on these grounds, it has no right to exist in a rational society cannot be burked. Morality exists as a system of principles of behaviour adopted and preached but not in any way grounded in truth.

What is left on the map? The positivist accepts mathematics and logic, which are purely analytic, and contain no matter of fact. He accepts also—and not merely accepts, but sets up as the paragon of knowledge—the empirical sciences, as the sole avenue to knowledge of the world and as the instruments of human welfare. He can also—and would, no doubt—admit the existence of a more humble knowledge of fact that is too unpretentious to be dignified as scientific; I mean the common-sense knowledge which all of us pick up in the course of a lifetime. But he would no doubt think that there was a great deal of unfactual, superstitious nonsense mixed up with it.

With this map in his hand, the positivist will be opposed to all other-worldliness. He will regard with the utmost suspicion all attempts to teach religious doctrine to children. The more this religion is combined with theological or philosophical dogma or theory, the more averse he will be to it. He will tend, I think, to be a utilitarian of sorts in morality with a dislike of absolute standards and fixed principles. (I say 'tend' advisedly here, since I do not think that his theories logically commit him to holding this position. What they do seem to commit him to holding is that there are no

rational arguments for absolute values or fixed principles. Discussion of such matters, therefore, is at best unrewarding, and at worst misleading or frivolous.)

Not unconnected with his dislike of other-worldliness, and in a sense merely a further extension of it, is his dislike of any suggestion that behind and beyond the facts as they are ascertained or ascertainable by science is something more. He has no use for dim vistas or what Charles Peirce, the American philosopher, called vague and vast ideas. He inhabits a universe in which many things are puzzling and unclear, but in which there is nothing which in principle need resist the patient investigation of the scientist or the determined unravelling of the philosopher. Given any proposition of doubtful status, his effort will be first and foremost to get clear about its meaning. Philosophers and all those influenced by philosophical discussion owe a debt of gratitude to positivism for the influence which it has exercised and continues to exercise on the standards of clarity in discussion and examination of all problems. It is the enemy of all loose thinking, the foe of pretentiousness and humbug.

Philosophy in the past has often suffered from a certain woolliness of language and thought; and educational philosophy has not escaped infection. Logical Positivism, with its search for clarity and its bringing every proposition before the bar of meaning, makes short work of edifying platitudes masquerading as novel theories. And, although the Verification Principle seems always to have been couched in too narrow terms, it is always salutary to inquire of any proposition with which one is called upon to deal such questions as: How could one put it to the test? What would confirm it? What sort of things happening would incline me to give it up? If there are some things we believe and are determined to go on believing, no matter what happens, this is a fact worth knowing whether or not we agree with the positivist contention that they are thereby rendered meaningless. In another respect the positivist attitude is helpful. Children,

and even many adults, will discuss almost anything. Part of the educational process must consist in learning that there are matters which can only be settled by conducting experiments or by establishing facts with the aid of documents. Where this is so, discussion is misplaced.

In another respect positivism is helpful—namely, in stressing the difference between inquiring into the facts and evaluating them. Whether this or that—universal education, increased tariffs—is a good policy always depends on the facts, what would result from the adoption of the policy, and on a deliberate moral preference made on the basis of the facts. But there is something misleading in the pervasive positivist suggestion that in the last resort the preference is a matter of taste, is arbitrary, irrational. All these misleading suggestions are implicit in the Emotive Theory of Ethics, which was for some time a commonly held ethical theory. They are not, I think, logical consequences of anything of importance in positivism. But the positivist denial that moral judgments are true or false has produced a state of mind which is difficult to reconcile with that moral seriousness which is an integral part of a complete human being. There is little doubt that positivist ethics, even when their intentions are subtly different, are often so couched as to *seem* to encourage moral laxity or indifferentism. There is, of course, room for latitude on some questions of conduct. Morality and taste have resemblances. There are cases where questions of taste and propriety shade into questions of morality. But there are matters on which our moral consciousness takes its stand uncompromisingly—and the more uncompromisingly the more we reflect and deliberate—and on these matters there is no question of our attitude being weakened by theory. On the contrary, we want a theory which will explain the stand that we take.

There are writers on ethics to-day who are developing the original positivist approach to ethics in a way that does greater justice to these facts. Some of the difficulties spring from the fact that positivists became concerned with ethics

not out of an interest in ethics but because ethical judgments presented a problem for their account of judgment in general. They were epistemologists talking about ethics. This phase has now passed. Those who now approach these questions from a positivist standpoint also approach them with a moral seriousness which is likely to result in a better analysis of the facts.

And here it is necessary to enter a caveat. To say that a person, to give a proper analysis of the moral consciousness, must possess moral seriousness is not to say that his moral philosophy will, or should, consist in edification. It is a cardinal point of positivist doctrine that in the past moral philosophers have often gone in for indirect moral preaching. They have so defined cardinal concepts as to influence and redirect the attitudes of their readers. This is a part of a more general tendency on the part of philosophers to give tendentious definitions of basic concepts. I have little doubt that the accusation is true. It is important—and the positivists have made it very clear—that the philosopher's job, in ethics as elsewhere, is to understand, not to exhort. But if he does not possess moral seriousness in himself he is not likely to understand moral facts in all their dimensions.

There is one respect in which I am doubtful as to the effect which positivism would have on the attitude of the teacher. Problems of a metaphysical and theological nature can be exciting and stimulating to the growing mind. Was the world created? How did life originate? Was there a beginning of time? These are questions which intelligent adolescents sooner or later come to discuss. Would a positivist attitude put a damper on these and similar questions as subjects for discussion? Would it quench the speculative interest which underlies such questions? I am inclined to think that the answer is 'no.' Although positivism is committed in principle to the ending of certain disputes of a metaphysical character, it has not in fact had this effect. Its attempts in this direction have served rather to stimulate interest in these problems, and to provide new grist for the

philosophers' mills. No doubt this is not what they intended. They set out to end philosophical controversy. Logical Positivism was to be the philosophy to end all philosophies. Instead what it has done is to give an immense fillip to philosophical discussion by the injection of new methods and techniques. In turn it has received a great deal of healthy criticism from philosophers of other persuasions, who have on many occasions shown its proffered solutions to be too sweeping, too indiscriminate, and too naïve. I expect that intelligent young people would react in equally diverse ways. Of course, if positivism had been a philosophical orthodoxy, State-imposed and State-directed, as Marxism is in Eastern Europe, the consequences might have been very different, and very harmful educationally.

What conclusions as to the proper content of education can be drawn from positivist philosophy? Its implied ideal of education is that of being trained to think scientifically for the purpose of uncovering facts and analytically for the purpose of uncovering humbug. It leans heavily, therefore, in favour of education in empirical science. With this as part of the educational programme no one would wish to quarrel. Not only more knowledge of science on the part of all is desirable, but a much more widespread grasp of what the scientist is doing, his point of view and outlook, needs to be fostered. Positivism would undoubtedly encourage this. In this respect it is in far greater accord with the general outlook to-day than those philosophies, for example, which consistently play down science in the interests of some supposed higher knowledge which has a degree of certainty and importance unattainable by scientific method. It is also free from that peculiar vice of some philosophies of attempting to show that, if philosophical and theological conclusions are reached by rickety methods and riddled with doubts, scientific conclusions are no better off.

There is nothing in positivist philosophy to show exactly what rôle the positivist would allot to the humanities in

education. One might have expected that there would be a well-defined positivist attitude towards history. History has its own methods and techniques of discovery as much as science. Some would say it is a science: but, even if this is the right way to describe it (of which I am very doubtful), its methods are not those of the natural sciences. Positivism has explored the methods of natural science with thoroughness: but it has only recently come to take an interest in history. One early positivist doctrine about history, now happily discarded, would have made nonsense of it. I refer to the astonishing doctrine that, since happenings in the past cannot be verified—because all verification must take place in the future—historical statements have their whole meaning in those future observations which would verify them. This doctrine, if taken seriously, would threaten the whole notion of the historical past. Now that this narrow version of the Principle of Verification has died, interest in historical research from a positivist standpoint has blossomed, and seems likely to make a useful contribution in a field where metaphysics has tended to sow a good many wild oats in the past. At least it is now clear that the positivist would not be unfriendly towards history as a study.

The study of languages presents no problem. The positivist would accept, or could accept, the usual philological and literary disciplines. He would, I think, incline towards scepticism about literary criticism. It is a great gap in positivist writings that there is as yet no positivist æsthetics; but from the rejection of absolute values in ethics one cannot help supposing that positivist æsthetics must lean heavily towards subjectivism. I think we can say with some confidence that the positivist attitude to æsthetics would be to regard it as an affair of taste lying wholly in the realm of feeling. Any one who can hold an emotive theory of ethics is not likely to hanker after an objective æsthetics. One thing, I think, can probably be said with certainty. The more closely literary criticism and the training in it took the form of the exact detailed analysis of passages from literary

works, as distinct from general appraisal, the more it would be likely to meet with the approval of the positivists as a worth-while exercise. For on their view many conflicts of opinion on all matters of valuation can be resolved by getting clear about the facts. And conflicts which cannot be resolved in this way cannot be resolved at all.

To sum up, as far as the content of education is concerned, education would be largely scientific and, I think we must add, wholly secular. Other-worldliness in all its forms is the plain man's version of transcendental metaphysics. It would be undesirable to encourage people to talk nonsense, and presumably undesirable to encourage them to pray, to worship, to attend church—that is to act as if the nonsense were true.

I come now to the relevance of Logical Positivism for methods and techniques in education. What I have to say will be brief, for the reason that there is little to say. There is nothing in the theories of Logical Positivism to favour this or that method of teaching. What we can say is that there is a strong predisposition towards the critical, the analytical, the verbal. In spite of its sometimes revolutionary doctrines, I suspect that in the end it implies a highly intellectual approach to problems. Positivist discussion is often subtle, complex, and, to an outsider, hair-splitting. The zest with which positivist philosophers discuss minutiæ has no parallel outside the Middle Ages. United in disbelief, as the theologians and philosophers of the Middle Ages were united in belief, they are able to divert themselves with the detailed mapping of the limited territory which they now peacefully occupy. Educationally their main desire would be to inculcate clarity of thought ("What cannot be said clearly had better not be said at all"), capacity for breaking down complex positions and accepting only what in them can be tested as meaningful, distrust of all emotional, inspirational, or persuasive language, and detachment as regards all questions of value. A determined attack would be made on all obscurity, vagueness, and ambiguity. Would

it be right to suggest that sense of wonder, joy in beauty, and the sensibilities generally might be weakened by this type of training? There certainly is a danger unless care were taken to see that the rigours of analysis were counterbalanced by the attractions of art, literature, and music.

Present-day Positivist Tendencies in Philosophy

Although Logical Positivism in the narrow sense is now a closed episode, its legacy in English philosophy has been considerable. The main current of English philosophy to-day is so closely related to positivism, and owes so much to it, that to the layman it *is* positivist. It will be worth looking at to see what in positivism has died and what has lived on.

The first thing that is very much alive is the linguistic approach to philosophy; but it has undergone a marked change. Whereas the early Logical Positivists were interested in devising languages which should conform to the principles of logic and expose the deficiencies and confusion into which we fall in ordinary language, the philosophers of to-day are more interested in the 'logic' of ordinary language. This seems to me in many ways an improvement. The logic of ordinary language is a more flexible, a more ramified, and a more variegated thing than the logic of the formal logicians. To have made this transition is to have escaped from a strait-jacket into an easy-fitting lounge suit. All sorts of expressions and statements which are vaguely unsatisfactory by the standards of formal logic come into their own with this new respect for the language of the plain man. It is now respectable for a philosopher to be interested in questions, and even in exclamations, as well as in statements. Communication replaces deduction as the field of logic.

This approach has its dangers. There is the possibility that philosophers may become so engrossed with studying ways of speaking that they study them even in the absence of any specifically philosophical interest. It may be that there really is a new discipline arising here which is not

exactly philosophy and not any other existent linguistic discipline. If this is so, the new study will sooner or later have to come to terms with other linguistic studies. Meanwhile this new interest in language from the philosophical standpoint is going to make itself felt in education. Its chief effect is to set a standard of clarity and precision in the use of language which will slowly penetrate other spheres. It is bound to have effects on the critical study of literature and to reinforce tendencies already present there.

One important result of this preoccupation with ordinary language is a general disintegration of the rigid skeleton of Logical Positivism. Although the empirical background of positivism still prevails and dominates the philosophical scene, attempts to formulate anything like the Principle of Verification have ceased to be made. This is not because any such attempts have won general acceptance, but rather because it seemed impossible to formulate the principle in such a way as to avoid unduly limiting the field of philosophy. The aim of the principle was to lay down the conditions of meaningful statement, and its ulterior aim was to reject metaphysical statements as meaningless. Apart from other difficulties with which it met, in whatever form it was stated it was confronted with the objection that it did not itself conform to its own criterion of meaningful statement. Hence it had to be demoted from being a statement of the basic principle of empiricism to being a procedural recommendation or a pragmatic proposal. From being an *ex cathedra* pronouncement, authoritative and unchallengeable, it became a mere whispered conspiracy of "Let us avoid metaphysics as unprofitable." It has now sunk still farther from sight. Empiricism is no longer a doctrine; it is a climate of opinion, the philosophical air which surrounds the working philosopher. Once again the absence of a hard and fast formulation allows a flexibility which is to be welcomed.

Closer scrutiny of all the problems on which positivism touched reveals that everywhere its hard and fast dicho-

tomies have had to yield. The distinction between synthetic and analytic judgments, between meaningful and meaningless statements, between logical and emotive language—all these have been, or are in process of being, dissolved. The notions, for example, of a pure statement or a pure expression of emotion are now seen to be extreme terms between which lie a great variety of cases. Each type of expression needs its own character to be made clear. No longer are moral judgments dismissed as pseudo-propositions or mere expressions of emotion or commands: the attempt is made to study them for their own sake rather than merely to exclude them as pretenders from some favoured category. The interest in, and respect for, ordinary language has favoured this development. In our ordinary speech we speak of them as moral *judgments*, we characterize moral judgments as sound or unsound, we give reasons for the moral judgments we make, and some of these reasons are accepted as good and others are rejected as bad. How like in all these respects they are to judgments of fact, and how unlike yelps of pain or words of command. Yet the difference, though it was exaggerated by positivism, still remains.

The different linguistic forms in which our thought finds its expression are ripe to be studied in all their richness and variety. There is hope now that, instead of being approved as empirical or condemned as metaphysical, they will be studied for what they are. The tendency is towards a greater neutrality in philosophical controversies than Logical Positivism adopted. Consider, for example, the problem of mind and body which has always exercised philosophers. Logical Positivism tended towards materialism, or at least towards regarding body words and mind words as two ways of talking about the same things: or else it became phenomenalist and regarded statements about bodies and statements about minds as ultimately reducible to statements about sensations. Careful analysis of ordinary language has shown that the equivalences demanded by phenomenalism do not hold. But mind in some circles is still regarded as labouring under

the stigma of being shadily metaphysical. No doubt it has sometimes been so conceived. Perhaps too the mind is not an empirical object if we take empirical in a sense based on the experimental sciences. But if we understand by an empirical approach to the problems of philosophy one that takes its cue from common sense and the language of common sense, then it seems necessary to recognize mind or experience as a category distinct from matter. In other words, if I am right, the attention to ordinary language will compel philosophy to free itself from excessively materialistic and behaviouristic conceptions of mind. This is not to say that the notion of mind as a substance, much less as a superior sort of substance or an eternal substance, ought to be resuscitated.

The wholesale attack on metaphysics is dead. The increased interest in language has so far confined itself to ordinary language—whatever that may be—but it cannot altogether neglect the language of transcendence, whether religious or metaphysical. That moral statements are not empirical does not mean—and has been seen not to mean—that they can be discarded or that they do not matter or that they are not perfectly respectable members of the family of communication. All language, whether scientific, moral, religious, or metaphysical, deserves consideration; and in its own right, not to discover what it fails to be but what it is and does. As Bishop Butler said, platitudinously but pregnantly, "Everything is what it is and not another thing." Whether the result of this interest in all kinds of linguistic expression may result in a revival of constructive philosophy is difficult to say. But at least it is a necessary preliminary to any such revival.

VII

Scientific Humanism

by J. A. LAUWERYS

THE expression 'Scientific Humanism' does not denote an articulated and coherent system of philosophical thought, but a broad, eclectic range of opinion and theory. It is—perhaps even primarily—an educational movement involving philosophical presuppositions and expressing an attitude to life and knowledge. Just as Renaissance humanism was a protest against scholasticism, so *scientific* humanism is a protest against *classical* (or literary) humanism which, so it is felt, has tended to minimize the importance and value of science as an instrument for solving the problems which face mankind.

The dictionary defines humanism as being, among other things, 'an attitude of mind or a system of thought which concentrates specially upon human interests and the mind of man, rather than upon the world of nature or religious ideals.' Scientific humanists would accept this definition, and it is certainly true that many of them, though not all, are somewhat hostile, or at least negative, to organized religion. They feel that the key to a deeper understanding of the nature of things is to be found in painstaking and modest research rather than in bold and sweeping mysticism. They believe that progress will come from following the path of reason and experiment rather than that of faith and untested intuition. They consider, therefore, that the great end of education consists in strengthening the mental and moral qualities which lead to the advance and to the wise use of science.

The dictionary defines 'science' as the "study and investigation of the phenomena of external nature, and the laws and principles which determine these, as distinguished from, and in contrast to, those branches of knowledge which are concerned with man as an intellectual, ethical, or social being." This definition, which would presumably be accepted by many educationists, would be rejected by most scientific humanists as a harmful dichotomy, a vicious bifurcation. Science is that part of man's total activity which aims at improving his condition, and, simultaneously, aims also at a deeper understanding of the way things behave: and there is no reason why men of science should not be concerned with man as an intellectual, ethical, or social being. Scientific humanism stresses this point of view, and attempts to root it firmly in the educational structure. It aims at spreading widely the habit of thinking of science always in terms of human welfare. It desires to disseminate among all people the habit of thinking of problems in realistic and factual terms while providing the training necessary to find solutions or, at least, to understand the solutions proposed. And it intends to maintain in full vigour the social climate of freedom and tolerance which in the past has led to increasing command of the material resources of the planet. Thus, scientific humanism is not merely a system of logical analysis, nor only a philosophy of science, nor simply a theory of knowledge, nor even a political programme. It is all these and more.

Renaissance Humanism and Classical Humanism

The Humanism of the Renaissance was, of course, deeply religious, Christian, and pious. What distinguished the views of men like da Feltre or Erasmus, More or Vives from those of the Schoolmen they criticized was, in the first instance, an immense and insatiable curiosity about the world, a conviction that not all was known and not all was to be found within the covers of books. Naturally enough, one finds, therefore, that there is less dogmatism and more

modesty in their work than in that of their predecessors. Further, these scholars all displayed a more humane and tolerant attitude than was then usual towards those less learned than themselves. To Budé, a great scholar of the pure type, Erasmus wrote, "You have preferred to be understood by the learned, I, if I can, by the many; your aim is to conquer, mine to teach or persuade." Humanists read books for their content—for *what* they said or taught about nature and the world. Metaphysical and theological subtleties or grammatical and logical studies no longer sufficed. They wanted to *know*; matter as well as form was needed. Of course, they valued the literature of Rome and of Greece. For them " the classics were the literature of knowledge as well as of power, and the earlier humanists were in a real sense the party of progress, since a first necessity was that the modern world should catch up with the ancient."

It did not take very long for the western European world to catch up with the Ancient. By 1550 it was well ahead, armed with a sounder method of investigation and with more adequate theories of navigation, of astronomy, of ship-building, of fortification and of military science, and possessing a more advanced technology and agriculture. It was inevitable, therefore, that insatiable curiosity should spill over into the exploration of nature as well as of the world. Galileo was ahead of Archimedes just as Drake was ahead of Hanno. Thus the next development of the Humanistic appetite is to be found in Francis Bacon rather than in Luther or Calvin—in Francis Bacon, who first forged phrases to express the immense hopefulness and faith that still drive us on :

> Human knowledge and human power meet in one; for where the cause is not known the effect cannot be produced. Nature to be commanded must be obeyed The true end and lawful goal of the sciences is no more than this: that human life be endowed with new discoveries and powers.
>
> The end ought to be from philosophy to separate and

reject vain speculations and whatsoever is empty and void, and to preserve and augment whatsoever is solid and fruitful; that knowledge may not be as a courtesan, for pleasure and vanity only; or as a bond-woman, to acquire and gain to her master's use; but as a spouse, for generation, fruit, and comfort.

Bacon had no intention of attacking classical or literary studies in themselves. He did distrust classical scholarship in so far as it relied upon a few old books and incessant logic-chopping of their contents:

> This kind of degenerate learning did chiefly reign among the Schoolmen; who, having sharp and strong wits and abundance of leisure, and small variety of reading, but their wits being shut up in the cells of a few authors (chiefly Aristotle, their dictator), as their persons were shut up in the cells of monasteries and colleges, and knowing little history either of nature or of time did out of no great quantity of matter and infinite agitation of wit, spin out unto us those laborious webs of learning which are extant in their books. . . . For the wit and mind of man, if it work upon matter, which is the contemplation of the creatures of God, worketh according to the stuff and is limited thereby; but if it work upon itself, as the spider worketh his web; then it is endless and brings forth, indeed, cobwebs of learning admirable for the fineness of thread and work, but of no substance or profit.

Those who wish to see in this passage from *The Advancement of Learning* (1605) an attack upon classical studies or humanistic scholarship are welcome, but they condemn themselves by so doing. Should not learning and knowledge be compasses helping explorers forward? Is it wrong to look upon experience of the past as a guide to the future? Were the Greeks themselves backward-looking? Did they pay attention to the past simply because it was the past, and represented tradition? Did they have to learn ancient languages before striving forward?

It is sometimes said that Bacon ignored deeper issues and

overlooked ethical and religious problems; that, in the words of Professor Bush, he sacrificed "to material progress . . . that scale of divine and humane values which the best minds of antiquity, the Middle Ages, and the Renaissance had striven to make prevail."[1] I believe this to be a mistaken view. Bacon was defending scientific work and investigation against its enemies and critics. He and they agreed over the large area concerned with 'divine and humane values.' But in his books he was arguing against those who wanted to enclose the human mind in the cells of a few authors, to put it in chains, to denigrate first-hand experience and experiment. In the study of any philosophy it is essential to begin by asking: Who was this man arguing with? What views was he attacking and defending? With what problems was he chiefly concerned?

It is true that Bacon was not primarily interested in religion or in ethics—nor were any of his followers. To him, presumably, the Church of England was a branch of the Civil Service, and the Archbishop of Canterbury was little more than the British Minister for Divine Affairs. But equally he wrote about science as if he himself were the Lord Chancellor—the Minister for Scientific Affairs. How, after all, would one expect him to write?

I have dealt so fully with Francis Bacon because he is, in a very real sense, the revered and much-quoted pioneer and leader of modern scientific humanism: as Rousseau is the prophet of progressive education. But, just as Rousseau needed Pestalozzi, so did Bacon need Comenius. The latter, the first great realist, acclaimed the *Instauratio Magna* as the philosophy for which he had been waiting. "Do not we ourselves dwell in the garden of Nature as well as the Ancients?" he says. "Why should we not use our eyes, ears and noses, as well as they? Why should we need other teachers than these, our own senses? Why should not we, instead of these dead books, lay open the living book of

[1] Douglas Bush, *The Renaissance and English Humanism* (1939), pp. 92 *et seq.*

Nature?"[2] And he condemns the classical authors because they were ignorant of new knowledge, and also because they were immoral and demoralizing.

The Jesuits and the schoolmasters had the answer to this. They saw no reason to suppose that it was the business of education to open the way to the future, or to prepare the way for change. Rather should it transmit the past and consolidate the present. And they showed that it was possible to select from the classics books and passages that would have 'moral value'—that is, that were in tune with the morality of the time as well as with the vested interests of the ruling classes. Education can always be emasculated by bowdlerization and selection.

Of course, the schoolmasters won the day, and they are still in power. It is worth while examining why they did, for here lies the root of many of the social and economic troubles which perplex us to-day. Many of them arise from the fact that science has been given its head in industry but frustrated and hamstrung in education.

Let us begin by noting that the victory of the schoolmen —or at least, their conquest of the classroom—was no easy one. Even classical humanists like John Milton, who had felt the bracing influence of the scientific challenge, displayed sympathy for its new outlook. In the *Tractate* Milton offers alternative definitions of the aim of education, of which one is medieval, theological, and backward-looking. "The end, then, of Learning is to repair the ruines of our first Parents by regaining to know God aright, and out of that knowledge to love him, to imitate him, to be like him, as we may the neerest by possessing our souls of true vertue. ..." The other is modern and humanist: "I call therefore a compleat and generous Education that which fits a man to perform justly, skilfully and magnanimously all the offices both private and public of peace and war." No one to-day could put the objectives of scientific humanist education more plainly or succinctly than this.

[2] Joseph Needham (ed.), *The Teacher of Nations* (1942), pp. 15 *et seq.*

How did Milton propose to achieve this second aim? Partly, of course, by providing the right environment, " a spatious house and ground about it "; the right diet, " plain, healthful, and moderate "; the right teachers and the right curriculum. Note the content of this complete and generous education: not only ancient but modern languages, and above all a great deal of science and mathematics, the central concerns being the improvement of agriculture and of navigation—the two great sources of wealth in seventeenth-century England.

To these proposals the orthodox answer—still given by our traditionalists—is that of Dr Samuel Johnson, who remarks in the *Lives of the Poets*:

> The purpose of Milton, as it seems, was to teach something more solid than the common literature of Schools, by reading those authors that treat of physical subjects, such as the Georgick, and astronomical treatises of the Ancients. . But the truth is, that the knowledge of external nature, and the sciences which that knowledge requires or includes, are not the great or the frequent business of the human mind. Whether we provide for action or conversation, whether we wish to be useful or pleasing, the first requisite is the religious and moral knowledge of right and wrong. . Prudence and Justice are virtues, and excellences of all times and of all places; we are perpetually moralists, but we are geometricians only by chance. Our intercourse with intellectual nature is necessary: our speculations upon matter are voluntary, and at leisure. Physiological learning is of such rare emergence, that one may know another half his life without being able to estimate his skill in hydrostaticks or astronomy; but his moral and prudential character immediately appears.

The argument is evidently outdated. Prudence and justice are as essential as ever they were, but our intercourse with the results of science is no longer a matter of rare emergence. We are influenced by them continually, and the control, the wise and prudent use of new knowledge, really has

become the great business of the human mind and the necessary condition for survival. Nevertheless, views like Johnson's had great weight, and were not *evidently* wrong at any time before, say, 1850 or 1870. Think of the range and extent of scientific knowledge in the seventeenth and eighteenth centuries: Copernican astronomy, Newtonian optics, Galilean mechanics, a great but largely unsystematized collection of botanical and zoological facts. Scarcely anything in the domains of electricity, magnetism, heat, acoustics, properties of matter, inorganic or organic chemistry. *What,* in fact, could have been included in school courses of science? A rather arid array of unco-ordinated facts of very little industrial or technological significance. For please note that science did not greatly affect the process of production until well on in the nineteenth century. The great inventions of the early Industrial Revolution were chiefly the products of ingenious craftsmen like Newcomen, Arkwright, and Hargreaves. James Watt was, perhaps, the first directly to apply recently acquired knowledge of a specialized kind to the improvement of machinery, and even his invention scarcely required it. In a word, it was by no means obvious before the present century that those in charge of farms or factories needed specialized knowledge of science, or that they would benefit in an important way from a training in its methods. In any case, there was usually little difficulty in explaining to any person of ordinary intelligence what was going on or what had recently been discovered. This was long before the days of intensive specialization, and before the growth of highly developed technical language. A sketch of a steam-engine conveys its meaning more easily than does a diagram of the wiring of a television set. Buffon's *Histoire Naturelle*, or even Darwin's *Origin of Species*, can be read with pleasure and profit by classical scholars who would find Julian Huxley's *Evolution* or J. B. S. Haldane's *Causes of Evolution* about as easy to understand as a Chinese manuscript.

But, you will say, what about the all-important *method*

of science? Could that not be taught to the young? Perhaps. Yet we should take note of the fact that this method itself grows, develops, changes. It was—and is—imperfectly understood. Bacon had attempted to analyse what he thought it was. His description is scholastic, obscure, one-sided, largely incorrect. He attacked dogmatism, mere book-learning, and the notional way which assumes that truths about nature can be found by analysing the meanings of words rather than the behaviour of things. These attacks can be accepted joyfully by all—but anti-dogmatism is not the exclusive monopoly of science. Bacon distrusted deduction and emphasized the need for induction. The real problem, however, is to describe adequately a process of thought which oscillates continually between the two. Furthermore, since he was not a practising scientific worker, but a politician and philosopher, his insight into the psychology of discovery and verification was very incomplete.

This is not intended as a depreciation of Bacon's contribution. Far from it. The task he set himself was an impossible one in his day. Even two hundred and fifty years after the writing of the *Novum Organum*, J. S. Mill found little to add to Bacon's analysis of scientific method—indeed, in some ways, he merely muddled and complicated it. My intention is only to show that there were excellent reasons—before the present century—for rejecting the suggestion that science should be allotted a central rôle in the curriculum of schools.[3] That proposal was never very precise, and it was doomed to sterility.

Only in the universities could it have borne fruit—and it

[3] There is an important exception to all this—the nonconformist and private academies of the eighteenth and early nineteenth centuries. Certain subjects and disciplines were needed for industry and commerce—for example, navigation, theory of instruments, book-keeping. Since these were not taught in ordinary schools, tuition was provided elsewhere. The clientèle, naturally enough, largely came from those classes of the population which were directly interested in trade and manufacture, and who wanted their sons equipped with relevant knowledge. The courses, however, would scarcely have provided a complete and generous education, nor combined science and humanism.

is deeply to be regretted that those institutions proved so blind and so reactionary as actively to discourage the pursuit of science.

One illustration of the above points is illuminating—namely, the failure of the *Écoles Centrales* of the French Revolution. These had been established through men like Condorcet and Lakanal, themselves influenced by the Encyclopædist movement, the origin of which can be traced through Locke to Newton to Comenius and Bacon. It was intended that these schools should teach science and little else. In the words of Fourcroy:

> Instead of tiring the pupils by over-feeding them on dead languages, it is the spectacle of nature and its creations, it is the mechanism of the world and the varied scene of its phenomena that will be offered to their imagination.
> We shall not limit their intellectual activity to the mere study of words and phrases. It will be facts and things that will nourish their minds.

The hopeful experiment lasted seven years. No doubt the abolition of the schools by Napoleon was largely motivated by political reasons—he wished to produce a loyal and docile Civil Service. But in large part the failure arose too from the fact that it had proved impossible to plan interesting, relevant, and valuable courses in any subjects except drawing—intended to teach observation—and mathematics. Mathematics, of course. After all none of what has been said applies to this subject. Even at the time of Bacon a great deal was known and it was well systematized. Much could be taught to children and young people. It was welcomed in the curriculum of schools, and played an important part in the universities. No one questioned its practical or its intellectual value.

The English Tradition in Education, 1800–1940

What has been said so far was intended to sketch roughly the background of the traditional curriculum of English schools and universities—of that tradition against which

are directed the protests and the attacks of modern scientific humanists. It was intended, too, to make plain that the new attitude has a respectable ancestry, and that the debate now proceeding is, in a way, only the old controversy carried on to a new plane. I hope that it will be clear why the arguments of Bacon, Comenius, Sir William Petty, and others failed to bear fruit. At the beginning of the modern period the scholastic ideals were slowly giving way to those of the Christian Humanists. These in turn were transformed into a Classical Humanism which always gave full weight to the need for forming good Christians while drawing its main moral inspiration from the classics. Men formed in this tradition did not hestitate to speak of Saint Socrates and, strangely enough, gave equal weight to the Bible and to Plato, in spite of the latter's strange and repulsive moral attitudes. The importance of Greek and of Latin gradually declined. Even at the beginning of the period the Classical languages were taught in the vernacular—a point which increased the tendency to stress formal and grammatical features at the expense of the content of the books studied. Mathematics, taught formally and without much regard to applications, were always accorded an honoured place.

When great reforms came, during the nineteenth century, they were not in fact such as would have satisfied Bacon. Modern languages were taught as inferior substitutes, and as if they were dead. Science was accorded a meagre place, very reluctantly, and taught in a way which negated its ideals and offended its spirit. The universities opposed and retarded changes which they should have welcomed and promoted. The great men of British science were nearly all amateurs, self-trained outside their walls.

In so far as scientific knowledge was evidently essential, it was provided within industry itself or in special institutions, the technical colleges. These had an inferior status, and seldom attracted men of the highest calibre, or of the upper classes. In industry and public life the same kind of division existed: those who directed and those who

ruled seldom had first-hand knowledge of the techniques upon which their power and prosperity depended. Increasingly, as techniques grew more complicated, they even failed to understand the simplified explanations which scientists and technicians offered. Not only the language of the latter but even their mode of thought grew strange and incomprehensible.

In the universities the proportion of students who devoted themselves to the sciences was very small, much too small, a point which escaped general notice until recently for a simple reason. Those who ran industry or commerce, being themselves ignorant of science, failed to understand their own defects—failed, that is, to see how they might benefit by using scientific research. Hence the number of posts offered to science graduates was small, and the prevalent mythology led to the belief that scientists were unsuited by training for positions of leadership. They were looked upon as desiccated 'specialists'—that is, as persons unable to share the interests and concerns of the dominant majority.

The protests against this state of affairs grew in volume as time went on and as the dangers of the situation became clearer. A century ago Herbert Spencer put forward a scheme of radical reform which was largely ignored in this country, though it had a deep influence in the U.S.A. T. H. Huxley, the first of the modern scientific humanists, expressed himself forcefully and eloquently, but was listened to mainly by the already converted. H. E. Armstrong, a disciple of Bacon, did his utmost to popularize the teaching of scientific method. The British Association promoted the preparation of a whole series of masterly reports which fell on sterile ground. In 1918 the Prime Minister appointed a special committee, under the chairmanship of Sir J. J. Thomson, to investigate the teaching of science in schools. Its very moderate and extremely sensible Report exerted curiously little effect. Indeed, by the 1930's it might be said that science in English education played a part of very little more significance than a century earlier.

This meant that the intellectual diet provided in our schools was to an ever greater extent isolating itself from the chief concerns of modern man; and was growing irrelevant to the deeper problems of industrial and social life. T. H. Huxley's prophecy that "scientific knowledge was spreading by what the alchemists called *distillatio per ascensum*; and nothing can now prevent it from continuing to distil upwards and permeate English society, until there shall be no member of the legislature who does not know as much of science as an elementary school boy" had been proved false by events. Our schools were forming men of character and integrity, able to appreciate a fine turn of phrase, but illiterate in the language and inept in the methods of the sciences upon which their lives and their safety depended—mandarins incurious about and contemptuous of the machines that surrounded them, or industrial coolies uncomprehendingly admiring the gifts of modern magicians.

Scientific Humanism

It will be said that all this is a one-sided and exaggerated account—and so it is. My purpose was to present the picture as it appeared to scientific men interested in education at any time after, say, 1920. This was the situation as they saw it, and which they wished to correct and change.

It is difficult and somewhat invidious to list the chief representatives of the movement. But names like H. G. Wells, Lancelot Hogben, Julian Huxley, Benjamin Farrington, C. H. Waddington, immediately come to one's mind. Not that they would all accept the title of 'Scientific Humanist'—some would prefer to call themselves 'Secular Humanists,' like H. J. Blackham and, perhaps, Farrington. Others, like Bertrand Russell and Susan Stebbing, would probably reject the label, though sympathetic to the general direction of thought which it describes. Of them all, it is Lancelot Hogben who has most continuously devoted himself to the dissemination of an outlook that could properly be called both scientific and humanist.

It is difficult to describe briefly and adequately just what scientific humanism is, in a way that would be acceptable to all who defend its ideals. But probably they would agree with the following propositions.

1. Scientific Humanism is a movement which aims at a total reform of the educational process. It accepts quite frankly that education has a social purpose which, however, can be attained only by treating individuals as individuals, not as social cells. Its defenders agree with people like Arnold and Green—or, indeed, with Plato—that a specialized or vocational training may equip a person to be a good plumber or physicist but will not fit him to be either a member of an oligarchy or a citizen of a democracy.

> The ruler and the democratic citizen need, as well as expertise, an education which enables them to tackle intelligently a problem on which they are not experts. Or, put in another way, the secret of government is to give sensible orders to someone who knows more about the details than the ruler does. . .[4]

Classical Humanism, it is urged, cannot achieve this purpose in this age, in the first place because it has lost touch with the thought and achievements of the present. It cannot lead because it is too far behind. In the second place, it is unsuited to modern conditions because it was always essentially anti-democratic and anti-scientific; anti-democratic because it derives from the slave cultures of the ancient world, anti-scientific because it accepts Plato's vicious distinction between pure knowledge of first principles—the knowledge worthy of a ruler—and technical knowledge of details, the knowledge worthy of a slave.

Here then scientific humanism agrees with classical humanism that the purpose of education is to fit a man " to perform justly, skilfully and magnanimously all the offices both private and public of peace and war." But it rejects the content as well as the method of ordinary humanist education—the former as out of date, the latter as too

[4] The quotation is from an article by R. H. S. Crossman.

restricted. There are certainly better books on politics than Plato's, and there is a sounder methodology than verbal argumentation.

2. Scientific humanists believe that scientific ways of thinking and acting can, in principle, be extended over a very much wider field than that in which they originated; for example—to the social studies as well as to communication in general. This does not mean that they are hostile to art. As T. H. Huxley put it, "I should be profoundly sorry to observe a tendency to starve or cripple literary or æsthetic culture for the sake of science."

3. Scientific humanists believe that science is one aspect of a total culture or social system. That is, they believe that under some systems the stream of science will dry up. They believe, too, that it is the growth of positive knowledge, and not of religion or of philosophy, which has led to man's progress during the whole of his past. They think, therefore, that we have an ineluctable duty to promote the setting up of those social conditions which will cause science to flourish. The converse of this proposition is equally cogent: as science grows, so must social conditions and social structure change. Here then they carry on the robust Victorian faith in progress; differing, however, from Spencer in believing that it is *not* inevitable, but something that can only be had if we strive for it.

4. Scientific humanists have faith in knowledge and human reason. That is, they believe that the education of the masses is essential not only for technological but also for social advance. But, familiar as they are with the data of analytical psychology as well as with the spectacle of Nazi Germany, they do not think that such advance is inevitable. It too must be striven for, and the chief instrument for the achievement of a better society is the right kind of school and the right kind of learning.

5. Scientific humanists have no interest in 'absolute values'—if these words denote "values that could be demonstrated or otherwise justified independently of any

reference to human needs, interests and ideals" (Feigl). They do not engage in the search for the indubitable, but are prepared to live with their doubts in an uncertain and changing world. They try to think and act within a framework of standards and criteria which have sufficient practical justification not to be called into question on every occasion of doubt. They have no wish to anchor their beliefs in the unknown or unknowable: they even somewhat despise those who need another world to ensure right conduct in this one. They do not need religion to inspire them towards better and humane conduct, nor to present them with ideals.

The Social and Political Background of Scientific Humanism

Behind such ideas there is, of course, a political and social tradition—that of the Radicals, of the Utilitarians and of the early Socialists. Lancelot Hogben stresses the importance of the latter:

> The socialism of Robert Owen, of Charles Kingsley, of Edward Carpenter, and of William Morris began as a protest against the dreary squalor which was effacing the common wealth of the countryside during the earlier stages of steam-power production. It denounced the worldly wisdom which chose an ever-increasing multiplicity of gewgaws and passive distractions as the goal of co-operative endeavour. . The Utopians—as they are usually called—anticipated scientific humanism because they saw clearly that human needs cannot be assessed in terms of 'consumer's choice,' and because they saw the hypertrophied metropolitanism of capitalist evolution creating psychological strains for which redistribution of spending power furnishes no sufficient remedy. . Today scientific knowledge offers us the possibility of a new plan of social living akin to the Utopia of a William Morris or an Edward Carpenter. . Modern science offers us a new *Social Contract.* The social contract of Scientific Humanism is the recognition that the sufficient basis for rational co-operation

> between citizens is the scientific investigation of the common needs of mankind, a scientific inventory of resources available for satisfying them, and a realistic survey of how modern social institutions contribute to or militate against the use of such resources for the satisfaction of fundamental human needs. Power to shape the future course of events so as to extend benefits of advancing scientific knowledge for the satisfaction of common human needs must be guided by an understanding of the impact of science on human society. So the new Social Contract demands a new orientation of educational values and new qualifications for civic responsibilities.[5]

But let it not be thought that these sentences imply loyalty to any existing party. For example, no one is a more trenchant critic of the Labour Party than Lancelot Hogben, who has castigated it for its antiquated philosophy of life, for its concentration on superficialities like nationalization, for its lack of interest in the building up of a society in which men and women would desire something better than pools, pubs, cars, and films.

The Philosophical Background

It is evident that Scientific Humanism, as an educational and social movement, involves philosophical assumptions. Since very few professional philosophers have been explicitly and closely associated with Scientific Humanism, these have not been fully or systematically examined. My own view is that scientific humanists are usually influenced more than they themselves realize by the whole stream of the English philosophical tradition. This tradition is one which has concerned itself primarily with method, with the instruments employed for the attainment of truth. And its field of study, above all, has been the value and reliability of *experience* as the source of knowledge.

" The aim of English philosophy," says T. M. Forsyth,

[5] L. Hogben, " The Creed of a Scientific Humanist," in *I Believe* (Allen and Unwin, 1940).

" has been to conceive and establish knowledge in such wise as to unite the distinctive nature of philosophy with the general marks and the particular conclusions of the sciences. . . . It is the philosophy of experience."[6] Rudolf Metz puts the same point in a somewhat Germanic manner:

> The main line of British philosophy is usually called empiricism or the philosophy of experience. [It] stretches from Bacon and Hobbes to Locke, Berkeley and Hume, and thence to Bentham, Mill and Spencer. We must choose the terms empiricism or positivism to show its general philosophic position; sensationalism or phenomenalism in relation to its theory of knowledge; associationism in relation to its psychology; hedonism or utilitarianism in relation to its ethics; scepticism or agnosticism in relation to its metaphysic; deism or indifferentism in relation to religion; liberalism in relation to politics.[7]

This is a very long collection of 'isms' to describe an English attitude. I gave it because it seems to me a correct description of the background beliefs of most scientific humanists at all levels. Consider, for example, what might be their attitudes to the topics dealt with in these lectures. Three of them would be welcome—pragmatism, logical analysis, and operationalism. Most scientific humanists would consider that each of these systems implied a concentration upon one aspect of their own broader interests. Take pragmatism, for example. In so far as it implies that knowledge is gained through activity, and that the meaning of propositions is to be found in the consequences they entail, it would be welcome. C. S. Peirce would be accepted, I think, *in toto*. Dewey would be looked at with more reserve, as cohabiting with a dangerous Hegelianism. As Santayana put it, " In Dewey, as in current science and ethics, there is a pervasive quasi-Hegelian tendency to dissolve the individual into his social functions, as well as everything substantial and actual into something relative and

[6] T. M. Forsyth, *English Philosophy* (1910).
[7] Rudolf Metz, *A Hundred Years of British Philosophy* (1938).

transitional." With regard to logical analysis, or logical positivism, there would be no difficulty at all. Attempts by people like Russell, Wittgenstein, Ogden, Richards, Ayer, and others to exorcize ancient linguistic or metaphysical ghosts by semantic fumigation are very welcome, and entirely in line with the intentions of Bacon himself. All a scientific humanist might occasionally say might be—remember that clarity is not enough. As for operationism and behaviourism, these are attempts to clarify scientific methodology, and thus complementary to logical analysis—this movement, too, is welcome.

It is more difficult to keep up a fruitful dialogue with the Marxists. Their attitude to science, their faith in its powers, their readiness to promote it, their realization of the close connexion between scientific advance and social progress, would seem to make them natural allies of scientific humanists. But their intransigent dogmatism, their attachment to old-fashioned nineteenth-century science, and their constant re-ification of abstract concepts make them quite impossible. As Lancelot Hogben says, "The history of Marxism is a record of repeated mistakes which could have been avoided if Marxists relied more on research which would reveal a number of possible contingencies and less on reasoning from insufficient data to seemingly inevitable conclusions."

However, the division between scientific humanism and the other three systems runs quite as deep or even deeper. Plato is the enemy of science as well as of democracy—here the antithesis is absolute. His view of the nature of knowledge and of the means of getting it is entirely unacceptable, and often demonstrably false. In Russell's mild words: "Thus while Plato has shown that there is a formal kind of knowledge, namely logic and mathematics, which is not derived from perception, his arguments as regards all other knowledge are fallacious." As for existentialism, there is little to say—I fancy all scientific humanists would look upon it as a useless and largely incomprehensible nonsense or mumbo-jumbo. This would not prevent them from

being amused by Sartre's plays or by the short stories of Camus.

The position regarding Thomistic philosophy is more difficult, since here one touches religion. It is, I think, correct to say that consistent scientific humanists tend to be hostile to almost any organized religion and indifferent towards religion itself. This arises in part from the fact that organized religion has usually tended to oppose scientific investigation, or at least to control it on behalf of non-scientific objectives. Here there is an overlap between the attitude of Marxists and of religious men—and the objection to both is to a dogmatism which has not and does not hesitate to use physical force to back its decrees, when such is available. In addition, of course, scientific humanists object to whatever turns attention away from urgent problems that can be tackled towards unsolvable riddles of no importance in this world.

But it would be wrong to conclude that scientific humanists have no interest in ethics, or that they are moral relativists. Far from it. One has but to read the works of T. H. Huxley or Julian Huxley or Lancelot Hogben, or, for that matter, H. G. Wells, to become convinced that all of them have a high purpose and a burning social idealism. Nor do they ever doubt that kindness, love of beauty, love of truth, honesty, or courage are virtues for all times and places. It is true that they have not written much about ethics, and that, by and large, their views are often a little naïve, a rather simple blend of goodwill and post-Christian liberalism. C. H. Waddington engaged in an instructive discussion with the philosophers some years ago, and emerged with his head bloody, but unbowed.[8] He had at any rate obtained the partial approval of Susan Stebbing, who said, "I am in agreement with much that Dr Waddington says . but I find a serious difficulty in understanding his present argument." And, of course, Julian Huxley in his Romanes Lecture on *Evolutionary Ethics*, tried to find an absolute in the evolutionary process itself. However, let it be freely

[8] C. H. Waddington, *Science and Ethics* (1942).

admitted: it is here, perhaps, in this important area of morals and ethics, that modern humanists are weakest. Their dilemma is that of any who feel forced to reject revelation and intuition as sources of truth and knowledge which do not stand in need of verification by the tests one would normally apply.

In order to complete this cursory and superficial survey of the philosophical background of the scientific humanists, it would be necessary here and now to analyse in detail their view of the nature of scientific knowledge, scientific law, and scientific theory; as well as of the nature of experiment and of verification. This would be too long and too complex a task. Having noted the omission, I should like to consider very briefly a few consequences for present-day education.

Educational Consequences

1. *Socialization of Content.* In the first place, at least as regards informative subjects, the social antecedents and consequences of the knowledge being dealt with should always be made plain. Knowledge is for life and for action. Thus, there would be no 'pure' science or 'pure' mathematics, if the adjective 'pure' means divorced from possible or actual applications. Science is an aspect of man's total activity. Its meaning can be understood only when it is thus considered. In addition, the way in which positive knowledge has been gained and applied is itself part of that knowledge. Thus the historical development of the subjects is important, and to be dealt with. To talk about steam-engines, for example, without dealing with the conditions that led to the invention itself and the social results that followed is plainly absurd. Science must be presented as an instrument for the improvement of man's estate and condition. Furthermore, knowledge is never to be presented without having in mind a clearly conceived aim: we teach such-and-such for such-and-such a purpose.

2. *Popular Education.* This social view of the function of education is associated with a strong, perhaps old-

fashioned, view of the importance of adult and popular education. Thus the leading scientific humanists, in this country and in the U.S.A., have taken great pains to produce books, appealing to the general public, in which new knowledge is explained and its consequences made plain. The names of H. G. Wells and Lancelot Hogben spring to mind. Their books are to be distinguished from the wonder books compounded of science, fantasy, and metaphysics, prepared by those who follow in the footsteps of Jeans or Eddington. The purpose of the latter type is to stress the mysteriousness of the Universe and man's ultimate helplessness. The purpose of the former is to increase command over Nature and to make the masses aware of the limitless possibilities ahead if they can learn to control atavistic passions by reason, to utilize knowledge aright, to have courage and faith. To realize, in a word, that God helps those who help themselves. This interest in popular education, allied to the general empirical philosophy which leads to the assumption that we learn by looking at phenomena and by handling things rather than by arguing over words and abstract notions, leads modern scientific humanists, as it did Comenius long ago, to take active interest in visual methods of presentation. Here let it be said that the work of the late Dr Otto Neurath and of the Isotype Institute is entirely in line with humanism—even though Neurath preferred to call himself a Logical Empiricist.

3. *Science and Mathematics.* The application of these principles has been illustrated by Hogben himself in *Mathematics for the Million* and in *Science for the Citizen.* Here we find the use of social history, the analysis of social effects, the interest in human affairs closely allied to the mathematics and the general science. Note the broad sweep, the inclusiveness, the encyclopædism. Note, too, the stress on the methods of inquiry and of verification. The general aim is simply stated, " It is to implement the age of plenty. To do [this] we have to make the record of scientific discovery an open Bible."

4. *The Social Studies.* The attitude of Scientific Humanists to the social studies is discussed by Benjamin Farrington in an article contributed to the 1951 *Year Book of Education* and exemplified by Professor Henry Hamilton in his *History of the Homeland.* This book does not attempt to treat history chronologically. Instead, it traces the background of social questions which are of burning interest to-day. It deals with human needs. There are chapters on food, dress, and health; on the place of women in society, on the specialist, on communications, and so on.

As regards geography—here the link would be that this subject, in alliance with geology, is that which is concerned with the preparation of a catalogue of the natural resources of the earth. Hogben suggests, too, that the infusion of a little elementary astronomy into it, as part of the story of navigation and discovery, would help to raise it to the dignity of a rational discipline.

5. *Language.* Language problems have been considered in Frederick Bodmer's *Loom of Language.* The central idea is that language is a tool of communication which can and should be improved. This improvement is one of the conditions for the establishment of harmonious and peaceful relations between nations and cultures. There is involved, in the first instance, the purging of languages from the pernicious viruses which are the residue of outworn metaphysics and ancient superstitions. In this task the contribution of the analysts is welcome. Secondly, we should now devote ourselves to the immense task of preparing the way for the construction of an International Auxiliary Language. Hogben himself proposed one such, Interglossa, but he is not hostile to Basic English. " In Great Britain [he says] the only important research undertaken in this field is that of Mr C. K. Ogden in the Orthological Institute." Meanwhile, of course, there are easier tasks at hand—the encouragement of the learning of foreign languages and, possibly, of bilingualism, and the promotion of all movements for the international adoption of Latin characters.

These remarks will, I hope, make clear that what is called for by scientific humanists is above all a change in the spirit of education—a return to the ideals of Bacon and Milton and Owen, the explicit awareness of teachers that their duty now is to train a generation prepared against the next age and armed with relevant knowledge. This aim accepted, one can pass to the discussion of the right curriculum and of the right methods, of the reform that is needed now, that reform of which Milton said, that " it be one of the greatest and noblest designs that can be thought on, and for the want of which this Nation perishes."

Conclusion

Let me attempt to sum up. At the centre of the Scientific Humanist creed lies the conviction that mankind now can, if it really wants to, create a new social order, in which we exploit the unexplored potentialities of nature in the service of the unexplored potentialities of man. To do this we must develop a new philosophy of education, freed from the dogmas both of scientific materialism and of Classical Humanism; a new sort of teacher who wants his pupils not to imitate the 'correct' procedure and appreciate the 'right' things but to understand the world and change it for the better; new politicians who understand the forces they are trying to channel and control; and, lastly, technicians, civil servants, and scientists, conscious of the social responsibility which expert knowledge brings, and willing to lead in the fight against the vested interests both of capital and of labour. This outlook springs from the whole of the tradition of this country—it is the line of what is most characteristically English in philosophy, science, and politics. This is true of its strength and of its weakness. It displays a naïve faith in man; a belief in common sense; a readiness to compromise; a peaceful non-dogmatism; a scepticism towards metaphysics; a reliance upon experience and experiment; and even a muddle-headedness.

In the dust of controversy and the excitement of argu-

ment Scientific Humanists have often been less than fair to their opponents, and have attacked beliefs held dear by many. It should be remembered, however, that those opponents have often displayed not only ignorance, but astonishing impertinence. One may get impatient of those who appeal to old traditions to stifle debate or to turn away attention from truly important issues.

It was Chesterton, not Hogben, who wrote:

> But the song of Beauty and Art and Love
> Is simply an utterly stinking song,
> To double you up and drag you down
> And damn your soul alive.

Only the song, mark you, *not* beauty or art or love themselves! For the song is not beautiful, nor artistic, nor lovely. It is simply distracting and noisy, and there is work to do.

After all, the issues being dealt with are vastly important, and there is no time to lose. The views put forward by traditional humanists and religious men are important. We know their message, however; we shall not forget its meaning. But the state of the world and of our country shows that more is needed than a defence of traditional values. The latter need reinterpretation in the new context of a technological society based upon science. It has been said that science without conscience is the ruin of the soul. True. But conscience without science is the ruin of the State.

VIII

Dialectical Materialism

by H. B. ACTON

In the Marxist system of ideas the title "Dialectical Materialism" is applied to the Marxist logic and philosophy of nature, and the title "Historical Materialism" or "Scientific Socialism" to the Marxist philosophy of society. Sometimes, however, the term "Dialectical Materialism" is applied to the Marxist philosophy as a whole, and it is in this extended sense that I understand the subject of my present lecture. There have, of course, been various versions of the Marxist philosophy. There was the Social Democratic version, in which the Marxist phraseology was used in justifying what were essentially policies of social reform. There was the Trotskyist, ultra-revolutionary version, in which Stalin and his Government were denounced as betrayers of the socialist cause. We know how, in our own university, Harold Laski brought his great learning to bear on the impossible alchemy of transmuting liberalism into Marxism and Marxism into liberalism. But there is a central Marxist tradition, commencing with Marx and Engels, and handed on through Lenin and Stalin to the present leaders of world communism, which is the Marxism we shall all have to reckon with in our lifetime, the Marxism of Lenin's tomb and of the *Daily Worker*, of the Rosenbergs, of Burgess and Maclean, of innumerable study-circles organized by Communist Parties in the non-Communist world, of the Electrical Trades Union, of the Marx-Engels Institute in Moscow, of the Chinese Revolutionary People's Party, and,

above all, of the Communist Party of the U.S.S.R. It is with this orthodox revolutionary tradition that I shall be concerned, for it is Governments set up under its ægis who organize the educational system so as to produce faithful believers and zealous followers.

II

Marxists believe that there was once a time when nothing at all existed that was not material. The world as we know it, in which there are all sorts of living creatures and intelligent animals, developed, they hold, by purely natural processes, without any prime creation or continuing divine support, out of this originally lifeless and mindless material stuff. This development took place, in their view, because matter is not inert, but is constantly in a state of tension, movement, or contradiction, and hence continually gives rise to new types of being as the old ones collide, interpenetrate, and oppose one another. The course of this speechless debate, or mindless acrimony, as we may call it, does not, they hold, consist merely in the arrangement and rearrangement of uncreated physical particles as the atomistic materialists had taught, but comprises a series of discontinuities or 'leaps,' when hitherto non-existent types of being all of a sudden appeared in the world. In this way, we must suppose, an originally purely gaseous condition was succeeded by the emergence of liquids, which are more than mere re-orderings of the particles which form the gases, and then by the emergence of solids of various sorts, and of life, mind, and society. Instead of there being God in the beginning and then the created variety of the universe, there was first a monotonous but, it would seem, contentious form of matter which produced the variety of things from its own inanimate tensions. After millions of years of biological evolution the human race emerged. Men are, of course, animals, but they differ from other animals in a most important way, for whereas other animals can

only obtain their means of subsistence by use of their original physiological equipment, men can obtain and produce their means of subsistence by the use of implements which they have themselves made—in this respect birds and beavers can do what men do, although not so well—and which they can improve upon from one generation to another—in this respect they have no rivals at all in other parts of the Animal Kingdom. It is this tool-using and continuously exercised tool-inventing capacity which, according to Marx, distinguishes man from the other animals and makes his society take the forms it does.

For it is a fundamental feature of the Marxist theory of history that human society has varied in its structure in accordance with the types of implement which men have discovered and developed. There was an early condition of Primitive Communism when there was no law or government. This state of technological and social innocence was disturbed by the introduction of agriculture and the discovery of how to work metals. Class divisions were set up, and, when slavery had been introduced, the institutions of the Ancient World were made possible, with the slave-owners as the dominant class. This was followed by Feudalism, a social system in which the ruling class consisted of noblemen who controlled access to the land and its working. The supremacy of the feudal landowners was contested by a rising class of merchants without noble rank (bourgeois) who turned to the production of goods in factories for sale in a market which was much less local than those that had existed under feudal domination. The introduction by them of power-driven machinery enabled these commoners or bourgeois so to increase their influence that they were able to take control of Governments and repeal laws that had suited the landowners and make new ones to suit themselves. These capitalists, as they now come to be called, could not have brought modern industry into existence if they had not depended upon the labour of workmen whom they employed for wages to carry out their orders. Thus they

brought a new class into being, the proletariat, a class they used as a means of obtaining profits for themselves. However, modern industry depends not only upon the ability of the proletarians to produce goods but also upon the existence of a wide market of buyers to consume them. But in their search for profits the capitalists make the workers they employ too poor to buy the goods they produce. Hence these capitalists, driven on by the law of their own being, the search for profits, use the power of their Governments to obtain colonies so that they may make profits by selling their goods there. This, however, brings the capitalist Governments into conflict with one another, and inaugurates the era of imperialist wars. The capitalist order of society is bound to come to an end as a result of these wars. The proletarians will revolt, led by professional revolutionaries trained in Marxist theory and practice. New forms of State will then be set up, proletarian dictatorships, whose function it will be to take industry from the capitalists, vest it in the State, and destroy the capitalist class. When no one remains who even wishes to make a profit from the sale of goods he has produced or bought the proletarian class will have succeeded in bringing class divisions to an end. Mankind will have risen through thousands of years of class struggle to a condition of planned harmony in which there is no exploitation of man by man. Human society will have passed from its beginnings in Primitive Communism to its goal in Planned, Industrial Communism. Released from the need to concern himself with bare livelihood, man will have before him millennia of unhindered progress, free from all antagonisms, but perennially vitalized by criticism and self-criticism and by those real contradictions which are necessarily inherent in all that is.

III

What I have put before you so far is a series of assertions and prophecies. We must now briefly consider how they are

held to be justified. What justifies them, according to Marxists, is natural and social science, which together make up an indissoluble union of theory and practice. On the Marxist view, the only way to discover how the world is is to look at it, handle it, decompose it, put it together again, and to transform it. Man's efforts to improve his implements and his efforts to explain the course of events are, according to Marxists, different aspects of a single process. The attempt to penetrate to the nature of the physical world failed so long as it was conducted in terms of thought, speculation, or contemplation, but came to fruition when observation was aided by experiment and experiment rendered effective by new instruments such as clocks and thermometers. By the use of such methods and instruments the natural and biological sciences have progressively revealed the nature of the material world in which man is. He will only understand himself and his social setting if he starts out from the observed fact that he is a tool-making and tool-using animal intent on satisfying his needs and securing his interests.

If we look at men in this way we can see that many of their beliefs are the result of their wishes rather than of genuine scientific inquiry. According to Marxists, men's religious beliefs, for example, are a fulfilment in fantasy of wishes for security, survival, and happiness which cannot get a real non-fantastic fulfilment in society as ordered in the capitalist world. In communist society the real needs of men would receive real satisfaction in the real world. In consequence there would be no call for imaginary satisfactions in an imaginary world, and thus religion would disappear with the circumstances that produced it. It is argued, furthermore, that those who in capitalist society stand to gain at the expense of the proletariat will be led by their class interests to support the continuance and spread of religious belief, for they will consciously realize or unconsciously feel that a widespread concern for another world may keep men's minds from thoughts of altering this one. All governing classes, again, will look at past history from

their own point of view so as to justify whatever their interests prompt them to do. The bourgeois science of political economy, too, was primarily invented to prove that industrial advance was impossible without the incentive of private profits. Marxists claim to see through, or to unmask, these interested beliefs, or ideologies, as Marx and Engels called them, and to reveal the social realities which they had covered. These social realities are the ways in which men gain their livelihoods and the class relationships associated with these ways. Just as a knowledge of physical or chemical principles has enabled men to change the material world so as to make it subserve their purposes through new machines and new substances, so a knowledge of Marxist social science will enable men to bring social forces under their control and to free themselves from subjection to crises and wars. And just as there is no natural science without experiment and industry, so, it is held by Marxists, there is no social science apart from the actual processes of overthrowing capitalism and of bringing communism into existence. Just as the natural scientist must be an experimenter, so, in capitalist society, the social scientist must be a revolutionary. After the dictatorship of the proletariat he will be a political or industrial leader.

IV

It follows from all this that Communists have to do different things in accordance with the different social situations in which they find themselves. In our own country now they have two main things to do. They must endeavour to spread the doctrines which I have just outlined and to gain influence in or control of working-class organizations such as Trade Unions or local Labour Party branches. At the same time they must do all that is in their power to further the influence of the Soviet Union, which they all consider to be the socialist fatherland. They must also do all they can to help, by means of propaganda, the aims of other

countries ruled by Communist Parties, and to support any nationalist movements that happen to have disputes with non-Communist colonial Powers. In brief, their aim in our own country, and in countries situated like it, is to prepare the way as best they can for the seizure of power by the Communist Party so that a dictatorship of the proletariat can be set up.

I do not propose in this lecture to spend much time discussing the educational problems raised by the existence in our country of a party with this outlook and these aims. Perhaps it is enough to establish the point that it does raise educational problems of some importance. Our schools and universities are organized within a framework of liberal constitutionalism. It is assumed that most teachers wish to enable their pupils to make the most of the opportunities that can arise within this framework, and are not revolutionaries who would destroy it if they could. Teachers who openly engaged in political propaganda of any kind among their pupils would soon find themselves in trouble with their employers—though, of course, in the higher classes of secondary schools teachers would not generally be required to conceal their political allegiance. In universities teachers of such subjects as economics, history, sociology, or even philosophy may on occasion give reasons for preferring one school of political thought to another, but it is assumed that there will be a diversity of political views among such teachers, and that they will not attempt to take advantage of any authority they have acquired with their students, but will be scrupulous to direct attention to all aspects of the relevant literature and not to some partisan selection from it. In any case, if a university teacher were tempted to depart from such a course he would have to reckon with criticism from students who are free to range at will over a wide uncensored area.

It is not easy for the members of such a liberal system to decide what attitude they should take towards those of their colleagues who wish to destroy it in favour of a new order

of things. If it were only a question of putting forward revolutionary political or social doctrines for critical discussion no one would object to a certain amount of partisanship. But it has to be remembered that behind the exponents of Marxist doctrine there stands an organization which aims at seizing power and at forcibly suppressing all opposition, intellectual as well as physical. This body, which is internationally organized, does all it can to smooth the path for men who are useful to it, for as long as they are useful to it, even when they do not formally belong to it. What, from one point of view, is an exercise of free speech is, from another point of view, a voice on behalf of a power which is out to abolish free speech. I have heard it suggested —not very seriously, perhaps—that one solution would be for universities to establish chairs of Communism to be occupied by Marxist theorists much as chairs of theology or divinity are occupied by ministers of religion. This would have the advantage of bringing Marxist theorists into an intellectual forum where they would be judged by their ability to defend their position against informed criticism. On the other hand, one cannot help feeling that it would not be practicable. Perhaps what is chiefly required is understanding and a certain wariness on the part of those whose first loyalty is to the system of candid inquiry and free discussion in which we may hope our higher education will flourish. In this connexion some words by Burke may be studied with profit, for the methods by which certain of the Encyclopædists prepared the way for the Jacobin revolution could be used in the service of quite a different and even less attractive cause.

> The literary cabal had some years ago formed something like a regular plan for the destruction of the Christian religion. This object they pursued with a degree of zeal which hitherto had been discovered only in the propagators of some system of piety. They were possessed with a spirit of proselytism in the most fanatical degree; and from thence, by an easy progress, with the spirit of persecution according

to their means. What was not to be done towards their great end by any direct or immediate act, might be wrought by a longer process through the medium of opinion. To command that opinion, the first step is to establish a dominion over those who direct it. They contrived to possess themselves, with great method and perseverance, of all the avenues to literary fame. Many of them indeed stood high in the ranks of literature and science. The world had done them justice; and in favour of general talents forgave the evil tendency of their peculiar principles. This was true liberality; which they returned by endeavouring to confine the reputation of sense, learning, and taste to themselves or their followers. I will venture to say that this narrow, exclusive spirit has not been less prejudicial to literature and to taste than to morals and true philosophy. Those atheistical fathers have a bigotry of their own; and they have learnt to talk against monks with the spirit of monks. But in some things they are men of the world. The resources of intrigue are called in to supply the defects of argument and wit. To this system of literary monopoly was joined an unremitting industry to blacken and discredit in every way and by every means, all those who did not hold to their faction. To those who have observed the spirit of their conduct, it has long been clear that nothing was wanted but the power of carrying the intolerance of the tongue and of the pen into a persecution which would strike at property, liberty, and life.[1]

V

" A school outside life, outside politics, is a lie and hypocrisy,"[2] wrote Lenin in characteristic style, and it is certainly the case that in all countries where Communists control the government they use the educational system to hasten the future society whose coming they claim to foresee. In the

[1] *Reflections on the Revolution in France.* Burke says that part of this paragraph was inserted into the manuscript by his son just before his death.

[2] Quoted in E. Koutaissoff, " Soviet Education and the New Man," in *Soviet Studies*, Vol. V, No. 2 (October 1953), p. 105. Of course Lenin would be right to say that a school cannot be " outside life."

early days of the Soviet Government there was talk of "the withering away of the school,"[3] by analogy with the withering away of the State prophesied by Engels. This, however, was only romantic excitement on the part of men who mistook the sunset of one day for the dawn of the next. We can only understand the functions of education in Soviet Russia and under other Communist Governments if we first consider the phases through which Communists believe their revolutions must pass. The revolution starts, they hold, with the seizure of power by the Communist Party, which acts as the spearhead of the proletariat. The old capitalist State is 'smashed' and a dictatorship of the proletariat set up which proceeds (*a*) to dispossess the capitalists and render them helpless as a class, and (*b*) to bring industry into the hands of the new proletarian State. Since capitalist exploitation consists in the extraction of surplus value by capitalists from the workers, there will be no exploitation once the capitalists are dispossessed. But the circumstances of revolution and of the economic collapse which will have preceded it will have brought about a shortage of goods which can only be remedied by careful planning and hard work. The dictators, therefore, will make use of a system of payment in which wages vary with work done, although there will also be social services enjoyed by all. The industrial system will be planned by the Government. To begin with, of course, there will be constant efforts by those whose hearts are with the old system to frustrate this incipient socialism. But once all class opposition and class division have ceased

[3] R. A. Bauer, *The New Man in Soviet Psychology* (Harvard University Press, 1952), p. 44. V. I. Shul'gin is quoted as follows: "In my opinion there will be no school in the future communist society. The child will go immediately into social work. There he will find no pedagogues, but a work director, who will be a sufficiently cultured person, and one who knows how to handle children. More correctly, we will all be pedagogues. The child will go directly from social work to industrial work, and from there to the library, where he will find answers to all the questions which interest him. We are approaching closer and closer to this all the time."

the planned economy operating in terms of differential rewards comes to merit the name of Socialism. At this stage, it was hoped, the State would wither away, for it is, by definition, a means by which a governing class maintains itself against an exploited class. Then the stage of Communism could be reached, when each contributes according to his ability and receives according to his needs. There would then be a planned society in which there would be no exploitation, no scarcity, and no government of man by man but merely an administration of things.

Now, it is the view of the Soviet leaders that Socialism has been set up in the Soviet Union.[4] The dictatorship of the proletariat has been so successful that there are now no class divisions. Unfortunately, however, it has not been possible for the State to wither away because it is needed to protect the new socialist society from the machinations of capitalist Powers. It is also sometimes admitted that there are survivals of the capitalist outlook which occasionally reveal themselves in crime, so that some governmental apparatus is needed to deal with this, quite apart from the dangers of foreign intervention. It is for a society held to be at this Socialist but not Communist stage that the Soviet educational system now exists.

What sort of system has been considered appropriate for this task? A system of compulsory education for all at the lower levels which up to 1940 had been free at all levels. In 1940 the payment of fees during the last years of secondary education and at the university was introduced in order to improve academic standards, since it was believed that when fees were demanded those who were not serious about their work would leave the schools and universities for other

[4] Stalin, in *Economic Problems of Socialism in the U.S.S.R.*, speaks of "the consolidation of the socialist system," and of "our present socialist system" (English translation, 1952, p. 30). According to *Pravda* November 4, 1955, the "solely correct definition" of the present stage is that of the "completion of the building up of socialism and of the gradual transfer from socialism to communism." (*Manchester Guardian*, November 5, 1955).

lines of activity.[5] In his report of the Central Committee to the 20th Congress of the Communist Party of the Soviet Union (February 14, 1956) Mr Khrushchov said that it had been decided " to abolish fees beginning with the new school-year, with the aim of creating more favourable conditions for introducing universal secondary education and giving young people greater opportunities for higher education." There is also now a system of marks, and students work their way up the educational ladder, or fail to do so, as a result of their performances at examinations. Great stress is laid on what is called ' polytechnization '—that is, a form of education in which the gap between manual and intellectual labour is to be bridged. In practice this appears to mean that there is considerable emphasis upon science and its applications, with as much use as finances will allow of laboratories, workshops, and agricultural plots.[6] From time to time Soviet educators justify their stress on this type of training by reference to a passage in Marx's *Capital* in which, after praising the provision in the Factory Acts for the giving of elementary instruction to child workers, he says:

> As we can learn from a study of the life work of Robert Owen, the germs of the education of the future are to be found in the factory system. This will be an education which, in the case of every child over a certain age, will combine productive labour with instruction and physical culture, not only as a means for increasing social production, but as the only way of producing fully developed human beings.[7]

It is clear that a main object is to produce a supply of workers for the jobs that are waiting for them. Those who move up the system to the universities may go into administrative posts of various kinds or, by a series of examinations,

[5] " Political Education in Soviet Schools," by K. Hulička. *Soviet Studies*, Vol. V, No. 2 (October 1953), p. 147.
[6] " Recent Data on Polytechnical Education," review article by E. Koutaissof, in *Soviet Studies*, Vol. VI, No. 2 (October 1954).
[7] *Capital*, Vol. I (Everyman edition), p. 522.

qualify themselves to become research workers or professors. While they are at the university the students do vacation work which helps to train them for the posts they will be offered when their course is over. A system of bursaries is used to induce students to take up the sort of course that fits them for the job they will be required to do afterwards, as well as to assist those who need financial help. There are special Communist universities (for instance, at Sverdlov), for the training of higher State and party officials, but Marxism-Leninism forms a part of all university courses.

In his report to the 20th Congress of the Communist Party of the Soviet Union Mr Khrushchov referred to the fact that in the pre-Soviet period "The ruling classes had their own system of educating the growing generation," and said it was desirable in the Soviet system to build boarding-schools at which children should be enrolled "only at the request of their parents," and where fees should be paid according to the parents' means, although "some parents could fully cover the outlay made by the State on the education of their children in boarding-schools."

It is not supposed that the principles of Dialectical Materialism can be directly taught to young children. So it is thought sufficient to introduce them to the materialist outlook in the course of teaching them the natural sciences, and to introduce them to the Marxist social theory by means of history, so that, as two Soviet educational writers put it, "the children will understand the great historical rôle of our multinational country in the liberation of all nations from exploitation, from lawlessness, and from national and religious oppression."[8]

Teachers in the higher educational institutions, however, are encouraged to engage in "atheistic, anti-religious propaganda." In an article in a periodical published by the Soviet Ministry of Higher Education in 1954 it is asserted that teachers in such institutions

[8] Yesipov and Goncharov, *Pedagogika* (Moscow, 1948), quoted by Hulička in the article cited above, p. 142.

> have forgotten that the prejudices of religion are amongst the most tenacious and harmful survivals of capitalism, that under-estimation and weakening in anti-religious work leads inevitably to more activity by members of the Church and of the sects who are trying their utmost to draw into the churches the young people above all. . It is necessary competently to explain to young people who it is that benefits from religion, who it is that wants religious holidays and rituals, the kind of harm done by the survivals of religion, and why there is conflict between science and religion.[9]

The author of this article goes on to say that it is the teachers in social science departments who have a special responsibility for doing this. He is careful to point out, however, that the Constitution of the U.S.S.R. guarantees freedom of conscience, and that in that country priests are not, as they mostly are in capitalist countries, agents of the bourgeois class. In *Pravda*, on November 11, 1954, it was emphasized that the struggle in Russia is not now against the Church, but against "an anti-scientific, religious world-outlook."[10] It is interesting to note that one reason given for the official displeasure with religion is that peasants use religious festivals as excuses for taking the day off. A research worker in the Numismatics Department of the Hermitage Museum in Leningrad earns the title of "Chameleon" because he also took part in Church affairs.

VI

The foregoing account is very brief and selective, and is based entirely on sources available in our own country or the United States. But even so it raises, I suggest, some important problems.

The 'polytechnical' education which forms so important an element in the Soviet system is primarily an education

[9] "A most important task of the ideological work of higher educational institutions." From the August 1954 issue of *Vestnik Vysshei Shkoli*, reproduced in *Soviet Studies*, Vol. VI, No. 3 (January 1955), p. 312 ff.

[10] *Soviet Studies*, Vol. VI, No. 4 (April 1955), p. 402.

for future *producers*. This may be partly due to the great present need for industrial expansion, and partly to the rapidity with which secondary education is being spread. But this stress on practical productive skill is an expression of the Promethean ideal which has been with Marxism from its earliest beginnings. This is the ideal of bringing nature under human control. As far as I know it hardly occurred to anyone in ancient or medieval times and was first proclaimed by Lord Bacon, according to whom those who seek knowledge for its own sake "have propounded themselves a wrong mark, namely satisfaction (which men call truth) and not operation." Bacon regarded science as a sort of organized alchemy for transforming the natural world into an instrument for satisfying human desires. Descartes, probably under Bacon's influence, spoke of man's becoming "the lord and master of nature." Bacon was a hero of the leaders of the French Enlightenment, who transmitted his ideal of productive mastery to nineteenth-century liberalism. There is thus a large measure of agreement between the philosophy of scientific advance and industrial expansion current in the Western world and the Marxist ideal of a natural world completely subdued to human purposes. From Saint-Simon and Fourier onward socialists have been prone to derive satisfaction from the idea of such projects as transforming the Sahara from a desert into a fruitful region. Professor Hayek has shown how some of Saint-Simon's disciples became important engineers and took part in such projects as the cutting of the Suez Canal. It is not socialists alone who regard the construction of enormous dams and irrigation works as supreme examples of human achievement. This philosophy of "social titanism," as it has been called, is a prominent feature of twentieth-century life generally, and not merely of Soviet Marxism.

It is often criticized on the score of its "materialism." In Marxism, of course, it is combined with a materialist philosophy of nature, but I do not think that it is necessarily combined with this outlook. Hegel, who was an Idealist, had

a view very much like it. As Hegel pointed out, many if not most of the achievements for which men deserve praise must take on a sensible form in the material world, whether it be the forms and colours of a picture, the representations of a play, or the institutions through which men love and help one another. The word 'materialism' may be used in a moral sense, however, to stand for the ideal of being satisfied with the fulfilment of the 'material' desires of food, shelter, and sexual enjoyment. Is the Promethean ideal materialistic in this sense?

I think it is fair to say that enthusiasts for the ideal of indefinite technological advance do not generally seek to distinguish its precise place in their scheme of values. They are apt to say that the purpose of improving productive techniques is for satisfying the needs of the people. But it is also recognized that the more the people get the more they want. Undoubtedly it is characteristic of the last two centuries that people's wants have expanded and become more various, so that less and less value is allowed to the older virtues of frugality and moderation.[11] The Greek hedonist Epicurus held that the way to enjoyment was by moderating one's desires, whereas the hedonists of the eighteenth century thought in terms of the fullest possible satisfaction of them all. To-day the man who is content with what he gets is rather an embarrassment to his fellows, for he seems to them to be an obstacle in the line of expansion. This expansion, however, may be understood in two ways. In the first place it may be understood as inventing the means of satisfying the desires I have labelled 'material' in more and more ways, so that there would be more foods and drinks and houses and sexual enjoyments and a longer life to have them in. Or in the second place it could be understood as a future of unbounded possibilities in which types of enjoyment hitherto unknown to man would be evolved. I think that Marx had this second view of it in mind when he said that hitherto

[11] See the Introduction to Bertrand de Jouvenel's edition (Geneva, 1947) of Rousseau's *Du Contrat Social*.

man had lived only in pre-history, and that his real history was yet to begin.

Now, the technological idealist, as we may call him, generally regards himself as promoting expansion in the first of these senses. In most human societies there has been all too much sheer physical pain and frustration, so that it is natural to pursue technological improvement in order to render the human lot more bearable. If it is objected that much of his work is used for warlike purposes, he may reply that he is as anxious as anyone else to serve his country. More often than not, he will regard the military use of his inventions as merely diverting them from their primary use of alleviating human suffering or promoting human happiness. I suggest, however, that the technological ideal has more in it than this. We may compare those who constantly improve the means of providing material enjoyments with the acrobat who subjects his body by marvellous feats of discipline, merely, it would seem, to evoke a murmur of applause from an insensitive audience. But just as the acrobat may also think his activity is worth engaging in for its own sake, so the technologist may pursue technological improvement as an end in itself. People travel on trivial errands in vehicles incorporating devices of great ingenuity in the production of which great knowledge and skill have been employed. The inventor, and sometimes even the producer, may have little interest in what the consumer does with what they have made, but may be chiefly concerned with the mechanism itself and, perhaps, with the judgment made on it by other experts. He may be compared with an artist who is more concerned with the picture he paints than with the use it may be put to in decorating a church or a town hall.[12] We can imagine a situation in which the majority of people,

[12] If painters cease to be interested in decorating churches or town halls or private houses, their paintings become ' works of art ' and the doctrine of ' art for art's sake ' withdraws them from the general activities of the society. The designers of aeroplanes or electronic computors are necessarily influencing social life, however uninterested they may be in how they influence it.

freed by the efforts of a few men of science and inventors from the natural dangers of climate and disease, are constantly egged on from one pointless form of enjoyment to another, in order that technological ingenuity may be exercised to the full.

So far I have followed the Marxist principle of not separating science and technology. Normally one would distinguish them by saying that technology is the application of scientific knowledge to the solution of particular practical problems. Thus the science of mechanics may be utilized in deciding how a bridge should be built over a certain river out of specific materials. According to the technological ideal, scientific knowledge is of value only to the extent that it is practically applicable. It is assumed that no one could reasonably wish to know how things are except with a view to doing something about it. Curiosity and contemplation are ranked lower than production and operation. Now, one reason that has been given for this preference should, I think, be rejected. Bacon was right to point out how important a place in science is occupied by experiment. But if science is for the purpose of understanding things, then the practical activity involved in the conduct of experiments is really in the service of understanding rather than of action. The failure of Greek and medieval men of science to recognize the importance of experiment in advancing science does not mean that they were wrong in regarding science as primarily a form of contemplation. If I am right in what I have said about the technological ideal, then for many people machines, or the designs for machines, are objects for contemplative enjoyment much as the heavenly bodies were for Greek philosophers.

We all know, of course, that the pursuit of science and of technological improvement has brought with it great problems of social organization. The relatively fixed social forms that existed up to two or three hundred years ago are hard put to it to contain the developments that science and industry produce. According to the Marxist, a scientific

knowledge of human society must at the same time be a control over it—social science must necessarily be social planning. Man must remove the unforeseen from society just as he tries to remove it from nature. Only those things shall happen which he wants to happen, and the unexpected, even if it turns out to be pleasant, is a sign that something has got out of control. It is this attempted application of the technological ideal to human society itself which raises the most serious problems for the future of mankind. We may ask whether anyone would, on consideration, really want the whole of society to operate in accordance with some humanly conceived plan rather than to evolve spontaneously, at any rate in some directions. If literature is not to be written to order, what will its effects be on the working of the plan? We may ask, too, whether it is conceivable that such a plan, or series of interlocking plans, could ever get under way. Even if it started working, the smallest failure at any point might set everything going in another direction. Perhaps some form of social thermostat or regulator could prevent this—but are we not deceiving ourselves when we transfer such notions to the sphere of human social behaviour? (It is true that 'regulator' or 'governor' was originally a social conception.) What is being proposed is that man is consciously to remake himself. If he remakes himself according to a specification, then his behaviour is conscious, but he is proposing to bring progress to a halt, petrified in his present idea of what perfection is. If he does not propose to remake himself in accordance with a specification, then he has abandoned the attempt at conscious control. If various groups are working to different specifications, then the result will be something which none of them foresees.

IX

Philosophy and Education

by L. ARNAUD REID

You will expect me to-day to begin with some reference to the lectures which have gone before. There are broad and rather striking contrasts in our series between three types of philosophy. First we have those philosophies—Pragmatism, Logical Positivism, Dialectical Materialism, Scientific Humanism, Behaviourism—which lay great stress upon science and scientific method, upon experiment and verification in sense-experience. They distrust all absolutes (though sometimes they surreptitiously assume them), and insist that we are plunged *in medias res.* Secondly, we have rationalism (in the traditional sense, and not as purloined by nineteenth-century materialists) of the Platonic-Hegelian tradition, or, in a different form, of Thomism and Neo-Thomism. These philosophies give a very important place to deductive and speculative reason. Though they may take some account of the relativism of things—of time, change, circumstance—they also speak of absolutes—a red rag to their opponents the empiricists. This raises at once the very important question of the nature of the thinking which is employed in philosophy, and of the tests which should check and perhaps chasten thinking. Are the scientific uses and empirical tests of reason the uses and tests which philosophy (and this would include philosophy of education) ought to adopt? Or does philosophical thinking direct itself—in part, at least—to questions which do not properly fall within any scientific field, and which must be tested by other means than scientific

experiment and observation? I am thinking now of the inward aspects of good, or what ought to be, of æsthetic quality, of certain relationships between human persons, of religion—and of the statements or propositions we make about all these things. Having suggested this question, I will leave it for the moment, returning to it at a later stage.

These queries are very closely related to others which are raised by the third type of philosophy, existentialism. Existentialism in some forms tends to be hostile not only to science and the philosophies which are much impressed by scientific method, but to philosophical rationalism and idealism as well. Kierkegaard was in strong reaction against Hegel. The existentialists speak of knowledge which is discovered only in living encounter and decision, and which could never be articulated in either the language of science or that of philosophy—though it is to be noted that existentialists do articulate a great deal, and do write large books! Can their claims be accepted? Is there no test or check—scientific or philosophical—of existential knowledge, and of its utterances? Is existentialism mistaken in its irrationalism?

Speaking of existentialism, there is a curious and interesting overlap between pragmatism and existentialism which I have never seen noticed. It is only a tiny area of overlap, for the two philosophies are hugely different. Pragmatism is strongly influenced by science; existentialism points the opposite way. But in both there is a central emphasis upon what the Americans first called 'involvement.'

Pragmatism stresses the engagement of the whole person in activity methods. One learns by doing, by immersing oneself in the present situation and in the problems it presents. And the pupil is 'involved' not only with his problems, but with his fellow-pupils and with the teacher. This is the way of learning; this is the way of knowing.[1] Existentialists like-

[1] Or it would be the way of knowing if pragmatism did not destroy 'knowledge' by its emphasis on what we *do*, to the exclusion of what we *find*, and what there is to *be* found.

wise make activity, engagement, commitment, decision, encounter, their central theme. Like pragmatism, existentialism is against absolutes, and against the separation of value from fact. Then the ways part. Existentialism develops a spiritual inwardness not known by pragmatism. And pragmatism has an outwardness—the experimental method of science—which is not known by existentialism. The personal and inter-personal engagement of existentialism is not a *condition* of objective learning, but a self-justifying end in itself. Pragmatism's belief in engagement is inseparable from its emphasis upon the subject-object relationship of science. This for existentialism is something which completely disappears in a deeper—and for existentialism a far more important—internal personal life. I cannot develop this now, or criticize it. But we are always saying that in education 'so much depends upon personal relationships.' Existentialism does at least show how importantly different is the I-Thou relationship from any in which one person regards another as an object to be scrutinized, or manipulated, or expressed in conceptual terms. For this reason any philosophy of education must pay attention to the positive declarations of the existentialists.

Having sketched some very broad contrasts in our series, perhaps I had better state, as background to some later positive suggestions, how I stand in relation to the chief philosophical positions represented.

Those philosophies which make science and scientific method a chief criterion of truth have all done valuable work in 'debunking' the pretensions of too deductive *a priori* rationalism, in their insistence on more precise specification and verification. But they are, I think, too narrow; and they sometimes show strong prejudice against the claims of other points of view than their own, and even of the claims of certain kinds of 'evidence.' Logical Positivists and other linguistic philosophers, for instance, are often wild, sweeping, even ignorant, in their dismissal of metaphysics. Behaviourism was, as Professor Mace showed, blind and

'brash' about what he rightly called the 'evidence' of introspection. The exclusive insistence on a certain kind of scientific verification has sometimes so destroyed fairness and the open-mindedness which is supposed to be the *sine qua non* of scientific reasonableness that the claims of religion at its best, and of its believed ways of knowing, have at times been caricatured and contemptuously dismissed. None, I think, of the scientific philosophies—I am not talking about science—is quite free of guilt here. And, in spite of what Professor Barnes said, I still think that the logical analysts' understanding of genuine ethical claims is at least suspect.

With much of the spirit of scientific humanism, in the very liberal form in which it was presented by Professor Lauwerys, I warmly sympathize. With its human care, its stress (though I suspect sometimes too exclusive stress) on knowledge " for the improvement of man's estate," its openness to experiment and new investigation, and its distrust of the authoritarian, if that means the insistence on statements that may not be questioned.

On the other hand, warm-hearted though scientific humanists can be, putting to shame at times the coldness of those who profess very different beliefs, there is, many of us feel, an essential lack of depth and dimension in the philosophy of scientific humanism. (I am speaking of it as a total philosophy, not as a method. And I am speaking of an idea, and not of persons.) I mean that there is a denial of transcendence, of God, of meaning and any purpose in the universe. This is not an accusation, but merely a repetition of what they say, in many writings. It is honestly said by them, and honestly lived upon because believed true. I can only affirm, and without any substantiation here, that I (I hope with equal honesty) believe it to be false. I happen to believe that if you look into the depths of human personality, and through personality to the universe, you find, not merely problems, but mystery there too great for scientific humanism to contain. Scientific humanism compre-

hends the sense of time and change, and misses the intimations of something else.

the lily grows
On what it feeds, and, feeding as it must,
Is shaped to loveliness it never chose;
Nor toils nor spins, dissolving to its dust
Without demur or pain. The cherry tree
With ghostly blossom flowers a summer's day
And casts upon the ground a springing sea
Of snow. These do in evanescence pay
To time their debt in full. But we who, wrought
In process, the enduring see, whose breath
For love is stopped, have to the eternal brought
Our ecstasy to pay its debt of death;
The stopping breath a prescience that we
Do die, and yet have immortality.[2]

It seems pretty plain to me that 'science,' in the sense of the natural, psychological, and social sciences, is not able to do all that humanism requires. Science is not, as Hogben says, " a sufficient basis " for the knowledge and betterment of human welfare. I shall argue that there are important areas of human good of which—as value or good—science has no knowledge, and to which the strictly scientific tests have no direct relevance. Scientific humanists, in fact, as Professor Lauwerys suggested, rather naïvely take their humanism for granted. They never face squarely the question of what science has got to do with the appreciation and verification of human good.

Then there is philosophical rationalism. Obviously I cannot now give any reasoned estimation of this great tradition. But I must say a word or two at least in order to define my own later position.

The strength of rationalism is that it believes in truth : it develops logical reason in philosophy to its fullest extent. Its danger is the danger of intoxication and of exclusiveness. It is easy to get drunk upon the triumphs and successes of pure reason, to think that this is everything, and that there is

[2] From an unpublished poem by the author.

nothing else. For the rationalist the logical constructions by means of which on so many occasions he has to think of the world may get in the way of his apprehension of being, and may even become substitutes for it. Like Pygmalion, we can fall in love with our own images. Or they may become idols in a false religion of intellect become presumptuous. I think this is to some extent true of Plato, where the Forms or Ideas, which are in fact abstractions, become the real world itself, or where, in the *Republic*, the behaviour of living men in society is to be conformed to a set of pre-determined concepts. We get it too in the hard brilliance of some of the professional philosophers among the scholastics or neo-scholastics, when they seem to be saying that philosophy, even philosophy of education, can be a final, complete, and certain logical system whose conclusions can be demonstrated from evident or self-evident first principles.

I should never myself use the words 'proof' and 'demonstration' in their strictest senses as applied to the major positions of philosophy. I prefer to speak of various degrees of rationally grounded belief. Nevertheless, we may firmly believe in objective truth and objective good: we may employ reason to its fullest extent, without limit, and at the same time acknowledge with humility that there are ways of coming to know which are not the ways of reason and reasoning, and in which, for the time being at any rate, the insistence on active reasoning would be a barrier to understanding. I refer, of course, to the inward knowledge of certain moments of personal relationship, to the "study with the heart," to the "presence" of people together, to the love and sympathy and humility of which Father Lawson spoke (and which are to be found in St Thomas Aquinas), to encounter, and the 'I-Thou' relationship of the existentialists. It would, indeed, be impossible to find anywhere a better answer to the fault of over-exclusive intellectualism than Father Lawson's liberal and exquisitely sensitive lecture.

One misses, too, in the exclusiveness of some rationalism,

and of some scientific humanism, the sense of what Wordsworth called " the breath and finer spirit of all knowledge." Philosophy is not poetry; but it should be aware of " the burthen of the mystery . . . of all this unintelligible world." Unyielding rationalism lacks recognition of other ways than intellect of acknowledging mystery, lacks recognition of

—that serene and blessed mood,
In which the affections gently lead us on,—
Until, the breath of this corporeal frame
And even the motion of our human blood
Almost suspended, we are laid asleep
In body, and become a living soul:
While with an eye made quiet by the power
Of harmony, and the deep power of joy,
We see into the life of things.

This is not anti-rational, or irrationalist, as extreme Existentialism is apt to be. Philosophy is the most general kind of thinking, and in some of its phases it is a strenuous exercise in pure reasoning upon matters which are remote from everyday experience. This is necessary. Again, although philosophy ought to accept and take very seriously those other, non-philosophical ways of coming to be aware, it has also got to try to understand them, to scrutinize them, to test their claims, to relate them systematically to other claims to knowledge. In doing this it must employ all the familiar devices of reason—generalization, the making of hypotheses, deduction, testing in experience, seeking for logical coherence and comprehensiveness.

Let me now try to state more positively some characters of philosophy as I personally see them, in relation to science on the one hand and to 'involvement' on the other, and having particularly in mind the very difficult question of the kind of reasonableness or objectivity which philosophy is striving after. This, I hope, may pave the way for a brief consideration of the particular branch of philosophy which we call philosophy of education.

Science and philosophy are each of them attempts to understand the world we live in, including ourselves. (I make bold to say this, though there are scientists and philosophers who disagree with even this innocuous-sounding statement.) But the approaches of science and philosophy, their methods, and their modes of testing their statements, are different. They need each other; philosophy, which is not fact-finding, is constantly dependent upon the sciences, as well as upon other sources, for its information. And the sciences need philosophy. Or, it might be truer to say, the larger life of inquiry which includes science needs philosophy too, for reasons which I hope may become more apparent as we go on.

The sciences—or, let me say, the empirical sciences, for I am not here thinking at all of the unique case of mathematics—are concerned with facts; and part of the method of the scientific discovery and understanding of facts is the abstraction of them from the context in which they actually exist. As Waddington, in his popular book *The Scientific Attitude*, put it, " Science must get its items separated; anything subject to its scrutiny must be isolated from the general mush of goings-on in which it is normally embedded."[3] This isolation is illustrated in the carefully guarded arrangement for conditions of observation and experiment. That is, of course, only part of the story. It is not individual isolated facts as such, but facts as instances of theoretical generalization, or as leading up to it, in which empirical science is interested. Not just facts, but the systematic thinking about facts, which enables us to group, correlate, predict, control. . . Yet it remains true that the theoretical constructions of science are highly selective, highly abstract, highly isolated systems, relevant to highly selected groups of facts, and limited in this way for science's own good purposes. The expression of a good deal of scientific thinking in mathematical language is one indication of this.

One must not, of course, in speaking of the empirical

[3] P. 45.

sciences think of the natural sciences only. In these sciences hypotheses are verified or falsified (or at any rate checked) at some stage by observations which are *public*, common to a number of observers, and which are sometimes repeatable. One looks at a curve, or a pointer on a scale, or a colour in a test-tube. But there is psychology, sociology, and there are other human sciences. Psychology rightly includes the data of introspection in its evidence, and these are primarily private. But is not introspection, when used, subject to very careful publicly determined checks? I do not want to dogmatize here; but is it not still true that the human sciences are substantially like the others in striving for as much precision, definition, impersonality, public formulation, common and public checks, as they can attain to?

One may put the contrast between science and philosophy rather oracularly by saying that, while science is concerned with *facts*, philosophy is concerned with *being*, and is the thinking study of being.

Of course, philosophy is interested in facts too, and, as I have said, depends upon information about them all the time, though it does not itself, like science, discover them. And, of course, philosophy, as a thinking study, must analyse and abstract too. But this is only a necessary *phase* of its procedure, and if some contemporary philosophers think that this is its main, or even exclusive, emphasis they are mistakenly, in my opinion, conforming philosophy to the pattern of science, and philosophy ceases to be itself. Philosophy has to abstract, and up to a point to isolate. But the primary data of philosophy, and the final objects of its thinking concern, are not abstracted isolated facts, but experience of being in all its concreteness, experience in which we are involved, as well as about which we think. And the final impossible ideal of philosophy is understanding of being. While science for its own good purposes, and to achieve its own rational precision and control, has to discard the wholeness and 'mush' of goings-on, of events in their actual being, philosophy, even when it abstracts, has to keep

this concrete experience of being constantly in mind, and to return to it in its thinking. This is the peculiar difficulty and discipline of philosophy, and, to many people, its aggravating fluidity and inconclusiveness. The whole and involved experiences of being which are the data for philosophical thinking are heavy, cumbersome, burdensome, embarrassing commitments. It is not only that the data of philosophy and the problems they raise are always set in an indefinitely wide context, and that different data and problems are continually overlapping one another: this is in a different way true also of science. The difficulty rather is that the abstractions which philosophy must make as soon as it begins to think are always so provisional and tentative, so liable to be modified at any moment in the light of some other factor in the concrete situation which may come to be seen to be relevant. Philosophy has its own necessary detachment; but only up to a point, and always provisionally. If the abstractions of philosophical thinking are not very tentative and provisional, if they do not return constantly to the imagination of the involved experience from which the abstractions are made, philosophy goes dead. Or it becomes vague, wildly speculative, careering away into the clouds. As in science there must be continual check and counter-check between theory and observation, so philosophical theory must be constantly checked by reference back to its own kind of experience of being. Scholasticism in the *bad* sense of the term—whether in some of the excesses now or in the Middle Ages, or in certain excesses of contemporary linguistic philosophies—is always the result of letting philosophical abstractions or theologically formulated doctrines get separated from the living experiences from which they were originally abstractions, and of failing to test constantly and to reconsider and reformulate the abstractions in the light of fresh involved experience. In philosophy the checks and tests are not what Waddington calls the "separated items," but aspects (admittedly only aspects) of the concrete situation. Ethical hypotheses are tested in total involved

ethical experience, educational hypotheses in total involved educational experience. Philosophy, I firmly hold, is in a real sense empirical, and must oscillate between hypothesis and experience and example—even if the experience and example are often remembered or imagined, and not every time actual. But here the words 'empirical' and 'experience' are being used in a much more total and concrete sense than the usual scientific one.

Such objectivity as there is in philosophy must therefore be that objectivity which can be obtained about what we are involved in. If there is any truth at all in Plato's saying that the philosopher is the "spectator of all time and all existence"—the philosopher is certainly not a spectator from outside, as in a sense the scientist is when he thinks of an hypothesis expressed, say, in public mathematical symbols, or when he looks through a telescope or microscope or uses his naked eye, or even, under careful direction, introspects. The philosopher is *inside*, trying to detach himself while he is also involved up to the neck—though, I think, not any further.

His involvement makes objectivity difficult to attain, difficult to check, limited in measure, never complete, comparing badly with science in all these respects. Nevertheless, in comparing the precision and sharp, detached objectivity of science with the very different state of affairs in philosophy, and to philosophy's disadvantage, I must not be unfair to philosophy. For philosophy is not (at least, when it is being characteristically philosophic)[4] trying ineffectively to do what science does well; and of course science gets precision only by attending to what it can be precise about. As a philosopher of science has put it: "Galileo did not set out to explore what was *interesting*; he set out to find what he could measure; he ignored, for his own purposes, everything else." But philosophy *is* concerned with what is interesting,

[4] It is, of course, true that a good deal of past philosophy was pre-scientific science. But it is not this aspect which is of permanent interest and importance.

with values, with quality, not quantity as such. Science has to abstract matter-of-fact from the values in which it is bound up. Even when science is in a sense directing its attention to values and value-experience—as, for example, in psychological investigations into æsthetics, or moral motives, or religion—it is studying the factual aspects of these things as far as it is possible to isolate them. Philosophy, on the other hand, is interested in thinking of the total situation in all its being, experienced as valuable, experienced as having quality belonging to the whole situation and nothing short of it. As Dewey puts it: " *Things* are poignant, tragic, beautiful . . . barren, harsh . . splendid; are such immediately and in their own right and behalf. . . ."[5] It is *things* in this robust sense which philosophy has to think about, and to which it must constantly return.

This thinking about quality, or about values, is thinking about what is not definable in the same direct public way as is the coincidence of a pointer on a scale or as is a position on a curve. We *are* able to communicate about quality and value, but our communication is of a more indirect, uncertain, and inferential kind than the more straightforward agreements or disagreements about whether there *is* actually a perceived coincidence or not, or how two curves differ.

Philosophy shares in the unfinished and indecisive character of life because it is life thinking itself. The tests of the validity of philosophical judgments of value can only be the long-term, deep and far-reaching tests of extensive human experience. Life-thinking-itself does not proceed like science—which is like the older military strategy—to establish point after point, consolidating each advance as it goes. Philosophy proceeds rather by infiltration, internal penetration. Life thinking itself is, to change the metaphor, the increasingly conscious and coherent illumination of its own complex idea. Fundamental philosophy is always returning to the same questions (though freshly conceived each time) because they are the fundamental, the root ques-

[5] John Dewey, *Experience and Nature* (1926), p. 96 'Italics mine'.

tions. And its answers, though they have to be expressed in conceptual language, are never adequately so expressed and are never finally satisfying, because they direct us back to life again, to new experiences newly apprehended partly because of the thought that has gone before. (And, because newly apprehended, posing still further questions.) It is not philosophy's disgrace, or a proof of irrationality, or of any disbelief in objective truth that it is not a deductive system, or that it cannot achieve the clarity and verification and impersonal objectivity of science—which are the fruits of science's voluntary self-limitation. It is not the disgrace of philosophy, but the mark of its involvement in continuing life itself—life, which is not really very simple. (Philosophers are often blamed for making things so difficult. They do not make them difficult; they find them so.)

Philosophy of education shares in these general characters of philosophy. Its data likewise are to be found in concrete experience of being and doing; its thought is thought about that experience, and it is to be tested there.

Where are these data to be looked for? Partly in educational experiences, including the experiences of having taught and having been taught—experiences which, of course, extend far beyond formal education. But, be it noted, these are only *part* of the data. It is a mistake—not uncommonly made—to imagine that the data about which philosophy thinks (or ought to think) are confined to the classroom, or even to what are commonly called 'educational situations.' And there is often a quite violent resistance to anything else among those who pride themselves on being sound, honest-to-goodness, 'practical' people.

Many problems of educational philosophy do in a way start in the classroom. But only in a fairly superficial sense, the sense that classroom situations are the occasions presenting the challenges. They have, however, implications far beyond it, which start long before it. The problems of educational philosophy are all, without exception, large questions of life, living, man . . . the universe.

Problems which, in the sense described, 'start' in the classroom—problems of freedom, discipline, method, the selection of the curriculum, the justification of a 'subject,' the whole puzzle about 'subjects' at all—all these are bound up with fundamental attitudes, beliefs, assumptions, which we possess long before they become explicit in the classroom, and which are carried over into everything we do and think. The teacher was not born yesterday; he comes to his job (whether or not he is consciously aware of it) with views of the 'piece of work' that man is, of the kind of creatures children are and ought to be. If he is to think intelligently about the immediate issues what he has to do is not just to stare at them till they begin to swim before his eyes, but to try to think them *together* with the beliefs he already holds, as objectively and critically as he can, to see what they look like, how they 'square with' or contradict one another, what they are worth, and how they may have to be modified, perhaps reconstructed, perhaps jettisoned. And in this process he will, if he is enlightened, be ready always to listen to and to consider what other thoughful minds have to say about these perennial issues. He may ask himself What am I really trying to do here? To make them go my way? To let them find out for themselves? What is the relation between their discovery and my guidance? What is my function as a teacher? How is what I do affected by my idea of what children are, of what I myself am, of what man is? Or why am I teaching languages as I do? Do I believe, for instance, that a living foreign language (or the writing of musical harmony) is best learned by applying memorized rules—the product of high abstraction—to examples? Could there be any connexion between this and what I referred to earlier as "logical constructions" getting "in the way of the apprehension of *being*," and even becoming "substitutes for it"?[6] Again, how do I teach literature or biology, and why in this way? How do I handle a poem or a small animal or even a plant?

[6] See F. M. Hodgson, *Learning Modern Languages* (1955).

With care and reverence, or only with cold detachment, as a specimen merely to be used and thrown away? In any case, Why? Again, what is the place of my subject in total education—and what on earth does this term 'total education' mean? And how far, when I look at them, will my answers stand up to examination? How far do I really believe them all? Do I not sometimes contradict myself? Have I considered sufficiently the wisdom of the great teachers and the great philosophers?

It takes time to think in this way; and it is easier not to think. But it does not follow that it is better—for ourselves and our pupils—not to think. This may seem so obvious as to be hardly worth saying. I sadly fear that it is not unnecessary to say it. For there are enemies of this kind of thinking, and, generally, of the *education* of teachers, who constantly rail against it—from inside the citadel of education itself, and in educational journalism, open or anonymous. Some speak and write from high places, but the hostility is quite widely scattered.

Obviously I cannot enlarge here upon this theme, or exemplify it, and I certainly do not want to exaggerate it, or to under-estimate the warmly liberal influences which are moving in exactly the opposite direction. I can only draw attention to the extraordinary assumption—for it does amount to this—that it is better not to think about, and beyond, the job of teaching, or about education, or why one is doing it; and that, somehow, being a 'practical teacher' absolves one from the necessity. It is obvious, it goes without saying, that teaching is learnt in the practice of it; no one disputes that. What is *not* true is the assumption that there is a sort of magic in 'practicality' which makes practicality infallible. It is nothing of the kind. In human actions there is always an idea and a purpose, and the important question is whether the purpose is acknowledged or critically scrutinized, or whether the doer is so cocksure that he does not deign (or he may be afraid) to ask himself what his own assumptions are, and whether they will stand up to examina-

tion. Is not this illusion of infallibility the enemy of all educational enlightenment? And may it not even infect the most particular things that are done in a school?

A teacher may think, for example, that he ought to 'keep the kids at it,' their noses to the grindstone. He may do it very effectively. But has he ever read Josef Pieper on *Leisure the Basis of Culture*? If he sees a boy exploring a pattern in the dust, or making one on a dirty window, what does he do? Tell him to get on with something useful? Has he any fellow-feeling for him? Has he thought about play, or art, or how the boy's imagination may possibly be moving? Again, is he a 'fact' merchant? Does he talk about 'the facts and the frills'? Are art, dancing, drama, all very well for parents' days, but a waste of time in a workaday world? Or what is his attitude to the 'D' stream? How often does one not hear it said, 'You can't do anything with these children; they're not worth bothering about; they'll never be any good.' How often do we *all* talk about 'the duds'? What view of human personality lies behind this? What do we think of attraction and love between boy and girl? Is it contemptuously dismissed as 'calf-love,' or even as a bit disgusting? Or can we reverence it as, perhaps, the first initiation into a tender mystery? Very different ways of being 'practical' here are possible, and they depend on fundamental assumptions about ends which need to be examined. (Anyone who doubts this might read John Figueroa's article in the *British Journal of Educational Studies*.)[7]

There are many specific ways in which training in philosophy of education may leaven and liberalize the essentially practical work of teaching. I will mention only two of them here. One is that it releases from mental isolation. The ideas which one may discover for oneself privately in one's teaching work receive a new slant, meaning, perspective, when they can be related to some relevant systematic philosophical thinking. It is that warming and interesting thing, the testing

[7] J. Figueroa, "Teaching and Education: The Teacher and the Pupil." *B.J.E.S.*, Vol. IV, No. I (1955).

of theory in experience, and the illumination of experience by theory. And with this sense of significance and of community of thought a teacher is supported and encouraged to new effort. This is a partial answer to those who say, 'Why should teachers as students be bothering about philosophy when they're getting on so well with their practical job?' One must remember that if they do not have it in their training years they may never have it at all.

Another advantage is the bearing of philosophy on the actual content of the curriculum—not necessarily or usually under the name 'philosophy.' Are we to allow and encourage children to acknowledge and think about the basic challenges of human existence, to help them gradually to discover what they are to set their courses by—or is this to be dodged, as *not* the job of teaching? If the answer is that we *should* help the children to think about these things, then surely the teacher ought to have some preparation for it—and, perhaps, a good deal more preparation than we now give?

Let us look, therefore, for a few minutes at this question of the philosophical preparation of teachers—the pattern of which would of course vary in different circumstances.

In the first place, the term 'philosophical education of teachers' must be used in a wide sense. Philosophy here is not highly technical philosophy, or to be studied finally for its own sake, but is integral to professional training, and relevant to it, though the relevance need not be *obvious* all the time.

Is it suitable for all students—some of whom are not 'intellectuals'? Yes, I think so, provided we have our own students' capacities and interests in mind, and provided we interpret 'philosophy' in a liberal way, and remember that there are infinite degrees of what William James called the 'unusually obstinate attempt to think clearly.'

How does one do it? Partly by discussing what arises directly out of the students' experience—not, I repeat, only their class experiences, but their outside life-experiences too.

Tutors who are aware of their students and of their students' needs can do this well. In this respect they are in quite a different position from teachers in schools. We are constantly being told, with dreary iteration, that the training of teachers should be wholly committed, or nearly wholly committed, to the hands of practical teachers in the schools. This advice speaks a really abysmal ignorance of what happens day in and day out in student tutorial groups. The tutor has his or her special job to do. It is primarily a job with students, not with children. It takes years to learn to do it well. The teacher's work is primarily a different one, and with children. This in no way derogates from the importance —indeed, indispensability—of the help which can be given to the young teacher by the good, experienced one. It is simply emphasizing that there are different functions, each of which has to be learnt.

But the tutor's work needs support by more systematic treatment, which can best be done by the right kind of lecture supplemented by group discussion. There is a place in student education for the more ordered and planned series of lectures which, looking ahead in the light of experience, sees, in perspective and in proportion and in relation to one another the great recurring questions. The good lecture can deal with these in a clearer, tidier, more compact way than can *ad hoc* treatment. It will always have fundamental relevance. It will not always have the immediate relevance so apparent in the tutorial discussion. But it will become so to the student, who will listen to the hints and suggestions in the lecture and will do some relating for himself. If he does so co-operate, something has started which will go on bearing fruit.

In this respect philosophy is rather different from the human sciences which are also properly part of the teachers' course. Information about stages of children's growth, or about methods of learning, the results of research, are more directly useful, and can be more directly applied in practice. But a particular bit of philosophy can hardly be applied to

a particular problem just as it stands, because it is part of a total attitude or philosophical position, and the student has to apprehend it in this way before it has an effect upon him, and, through his assimilation of it, an effect upon his practice in all sorts of ways. His philosophy has to mature in him; and when it has done so its effects may be so subtle and so manifold an expression of his personality that it is exceedingly difficult to pin-point and demonstrate them.

So the student must sometimes sit back, and work upon his thought, and let his thought work upon him. There is what Professor W. E. Hocking once called the 'Law of Alternation.' We swing between thought and action; and thought requires some detachment, retreat—and time. There is a wholesome rhythm in things. On the time for retreat, I will quote some words of George Herbert:

> By all means use sometimes to be alone;
> Salute thyself; see what thy soul doth wear;
> Dare to look in thy chest, for 'tis thine own,
> And tumble up and down what thou find'st there.
> Who cannot rest till he good fellows find,
> He breaks up house, turns out of doors his mind.

In Training Colleges, in Departments of Education, in the Institutes of Education, there is, generally speaking, an increasing multiplicity of staff and increasing distinction of function. Nowadays we are many. Somehow, we also have to be one. Learning through practical teaching is one thing, learning through thinking about practical teaching and practical education is another. Learning through wider experience and wider philosophical thinking are other things still—added to which is the knowledge of 'subjects' and of the history of education and of scientific knowledge—for example, of psychology. It would be absurd if we should begin to dispute among ourselves which is to be the greatest. There are different functions in a common task; and the sense both of the differences and of the common purpose is more essential than ever it was before. If the neces-

sary differentiation of function is to remain healthy any centre for the education of teachers must be a community in which colleagues know one another, know something of what others are doing, and who are willing to listen and learn all the time as well as to teach.

I believe that in all this philosophy has an important part to play, but that it can only play its part as it ought if it is always ready to learn from others what is needed, and, on this condition, is left free to give the best of what it peculiarly can give to the education of teachers.